

Exhibit H

Certificate of Registration



This Certificate issued under the seal of the Copyright Office in accordance with title 17, United States Code, attests that registration has been made for the work identified below. The information on this certificate has been made a part of the Copyright Office records.

Marybeth Peters
Register of Copyrights, United States of America

Form VA
Work of the Visual Arts
VAU739-704
EFFECTIVE DATE OF REGISTRATION
1/1/07

DO NOT WRITE ABOVE THIS LINE. IF YOU NEED MORE SPACE, USE A SEPARATE CONTINUATION SHEET.

1 Title of This Work **NATURE OF THIS WORK** See Instructions
Grande Park Elementary School Plans and Project Manual — Under Construction Architectural work

Previous or Alternative Title

N/A

Publication or a Contribution: If this work was published as a contribution to a periodical, serial, or collection, give information about the collective work in which the contribution appeared. Title of Collective Work

N/A

If published in a periodical or serial give: Volume Number Issue Date On Page

2 NAME OF AUTHOR DATES OF BIRTH AND DEATH
a Kluber, Skahan & Associates, Inc. Year Born Year Died

NOTE

Under the law, the author of a work made for hire is generally the employer, not the employee (see instructions). For any part of this work that was "made for hire," check "Yes" in the space provided, give the employer (or other person for whom the work was prepared) as "Author of that part," and leave the space for dates of birth and death blank.

Was this contribution to the work a "work made for hire"?
☐ Yes
☐ No

Author's Nationality or Domicile
Name of Country
OR
Citizen of USA
Domiciled in USA

Was This Author's Contribution to the Work
Anonymous? ☐ Yes ☒ No
Pseudonymous? ☐ Yes ☒ No
If the answer to either of these questions is "Yes," see detailed instructions.

Nature of Authorship Check appropriate box(es). See instructions.

☐ 3-Dimensional sculpture ☐ Map ☐ Technical drawing
☐ 2-Dimensional artwork ☐ Photograph ☐ Text
☐ Reproduction of work of art ☐ Jewelry design ☒ Architectural work

Name of Author

Dates of Birth and Death
Year Born Year Died

Was this contribution to the work a "work made for hire"?
☐ Yes
☐ No

Author's Nationality or Domicile
Name of Country
OR
Citizen of
Domiciled in

Was This Author's Contribution to the Work
Anonymous? ☐ Yes ☒ No
Pseudonymous? ☐ Yes ☒ No
If the answer to either of these questions is "Yes," see detailed instructions.

Nature of Authorship Check appropriate box(es). See instructions.

☐ 3-Dimensional sculpture ☐ Map ☐ Technical drawing
☐ 2-Dimensional artwork ☐ Photograph ☐ Text
☐ Reproduction of work of art ☐ Jewelry design ☒ Architectural work

3 Year in Which Creation of This Work Was Completed This Information must be given Year in all cases. **b** Date and Nation of First Publication of This Particular Work Complete this information: Month Day Year OR, if this work has been published in Nation

4 COPYRIGHT CLAIMANT(S) Name and address must be given when it first claimant is the same as the author given in space 2. Kluber, Skahan & Associates, Inc. 901 N. Batavia Avenue, Suite 301 Batavia, IL 60510

Transfer: If the claimant(s) named here in space 4 is (are) different from the author(s) named in space 2, give a brief statement of how the claimant(s) obtained ownership of the copyright.

RECEIVED
JAN 11 2007
ONE DEPOSIT RECEIVED
JAN 11 2007
TWO DEPOSITS RECEIVED
FUNDS RECEIVED

MORE ON BACK

Complete all applicable spaces (numbers 1-4) on the reverse side of this page. See detailed instructions. Sign the form at the bottom.

DO NOT WRITE HERE

EXAMINED BY

FORM VA

CHECKED BY

CORRESPONDENCE

☐ YesFOR
COPYRIGHT
OFFICE
USE
ONLY

DO NOT WRITE ABOVE THIS LINE. IF YOU NEED MORE SPACE, USE A SEPARATE CONTINUATION SHEET.

PREVIOUS REGISTRATION Has registration for this work, or for its earlier version of this work, already been made in the Copyright Office?

☐ Yes ☒ No If your answer is "Yes," why is another registration being sought? (Check appropriate box.)a. ☐ This is the first published edition of a work previously registered in unpublished form.b. ☐ This is the first application submitted by this author or copyright claimant.c. ☐ This is a changed version of the work, as shown by space 6 on this application.

If your answer is "Yes," give Previous Registration Number

Year of Registration

DERIVATIVE WORK OR COMPILATION Complete both parts 6a and 6b for a derivative work; complete only 6b for a compilation.

a. Presenting materials Identify any presenting work or works that this work is based on or incorporates.

N/A

b. Material Added to This Work Give a brief, general statement of the material that has been added to this work and in which copyright is claimed.

N/A

DEPOSIT ACCOUNT If the registration fee is to be charged to a Deposit Account established in the Copyright Office, give name and number of Account.

Name

Account Number

N/A

CORRESPONDENCE Give name and address to which correspondence about this application should be sent: Name/Address/Apt/City/State/Zip

Nicholas A. Grojean

Ancel, Glink, Diamond, Bush, DiCianni & Krafthefer, PC

140 South Dearborn-Suite 600

Chicago, IL 60603

Area code and daytime telephone number 312 782-7606

Fax number 312 782-0943

Email Ngrojean@ancelglink.com

CERTIFICATION I, the undersigned, hereby certify that I am the

check only one

☐ author☐ other copyright claimant☐ owner of exclusive right(s)☒ Authorized agent of: Kluber, Skahan & Associates, Inc.

Name of author or other copyright claimant, or owner of exclusive right(s)

of the work identified in this application and that the statements made by me in this application are correct to the best of my knowledge.

Typed or printed name and date If this application gives a date of publication in space 3, do not sign and submit it before that date.

Nicholas A. Grojean

Date 1/2/07

Handwritten Signature (X)

Certificate
will be
mailed in
window
envelope
to this
address

Name

Nicholas A. Grojean

Address

Ancel, Glink, Diamond, Bush, DiCianni & Krafthefer

Number Street/Apt

140 South Dearborn-Suite 600

City/State/Zip

Chicago, IL 60603

REMARKS

Complete all necessary spaces.

Sign your application in space 10.

RECEIVED ELEMENTS

IN THE NAME OF THE

1. Application form
2. Nonrefundable filing fee in check or money
order payable to Register of Copyrights
3. Deposit material

LIBRARY OF CONGRESS

Copyright Office

101 Independence Avenue SE

Washington, DC 20540-0000

17 USC 506(a): Any person who knowingly makes a false representation of a material fact in the application for copyright registration provided for by section 406, or in any written statement filed in connection with the application, shall be fined not more than \$2,500.



Form CA

For Supplementary Registration
UNITED STATES COPYRIGHT OFFICE

This Certificate issued under the seal of the Copyright Office in accordance with title 17, *United States Code*, attests that registration has been made for the work identified below. The information on this certificate has been made a part of the Copyright Office records.

Marybeth Peters

Register of Copyrights, United States of America

R1

VAu756-021



VAU80756021#

TX TXU PA PAU VA VAU SR SRU RE

EFFECTIVE DATE OF SUPPLEMENTARY REGISTRATION

MAY 21 2008

Month Day Year

DO NOT WRITE ABOVE THIS LINE. IF YOU NEED MORE SPACE, USE A SEPARATE CONTINUATION SHEET.

A

Title of Work ▼

Grande Park Elementary School Plans and Project Manual-under construction

Registration Number of the Basic Registration ▼

VAu 739-704

Year of Basic Registration ▼

2007

Name(s) of Author(s) ▼

Kluber, Skahan & Associates, Inc.

Name(s) of Copyright Claimant(s) ▼

Kluber, Skahan & Associates, Inc.

B

Location and Nature of Incorrect Information in Basic Registration ▼

Line Number 1 Line Heading or Description Nature of this Work

Incorrect Information as It Appears in Basic Registration ▼

The Nature of this Work was provided as Architectural Work.

Corrected Information ▼

The Nature of this Work should be Architectural Plans and Project Manual.

Explanation of Correction ▼

C

Location and Nature of Information in Basic Registration to be Amplified ▼

Line Number 6a Line Heading or Description Derivative work

Amplified Information and Explanation of Information ▼

No claim is made to any preexisting material owned by third parties or information that is in the public domain.

FORM CA RECEIVED

FORM CA

MAY 21 2008

FUNDS RECEIVED DATE

MAY 21 2008

EXAMINED BY *WLB*CORRESPONDENCE ☐REFERENCE TO THIS REGISTRATION ADDED TO
BASIC REGISTRATION ☒ YES ☐ NOFOR
COPYRIGHT
OFFICE
USE
ONLY

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Continuation of: ☒ Part B or ☒ Part C

Part B

Line 2a

Description: Nature of Authorship

Incorrect information:

The box was checked for "Architectural Work."

Correct information:

The boxes should be checked for "Technical Drawings" and "Text."

Part C

Line 6b

Description: Material added to this work

Original work of authorship of specifications, text, and technical drawings.

Correspondence: Give name and address to which correspondence about this application should be sent.

Joseph T. Kucala, Jr. c/o Norvell IP llc
1776 Ash Street
Northfield, IL 60093

Phone (630) 453-8380 Fax (312) 268-5063 Email jkucala@norvellip.com

Deposit Account: If the registration fee is to be charged to a Deposit Account established in the Copyright Office, give name and number of Account.

Name _____

Account Number _____

Certification* I, the undersigned, hereby certify that I am the: (Check only one)

☐ author☐ owner of exclusive right(s)☐ other copyright claimant☒ duly authorized agent of Kluber, Skahan & Associates, Inc.

Name of author or other copyright claimant, or owner of exclusive right(s) ▲

of the work identified in this application and that the statements made by me in this application are correct to the best of my knowledge.

Typed or printed name ▼ Michael T. Kluber

Date 16 May 08

Handwritten signature (X) ▼ *Michael T. Kluber*Certificate
will be
mailed in
window
envelope
to this
address:

Name ▼

Joseph T. Kucala, Jr.

Number/Street/Apt ▼

1776 Ash Street

City/State/ZIP ▼

Northfield, Illinois 60093

YOU MUST:

- Complete all necessary spaces
- Sign your application in Space F

SEND ALL ELEMENTS
IN THE SAME PACKAGE:

1. Application form
2. Nonrefundable filing fee in check or money order payable to Registrar of Copyrights

MAIL TO:

Library of Congress
Copyright Office
101 Independence Avenue SE
Washington, DC 20559-4000

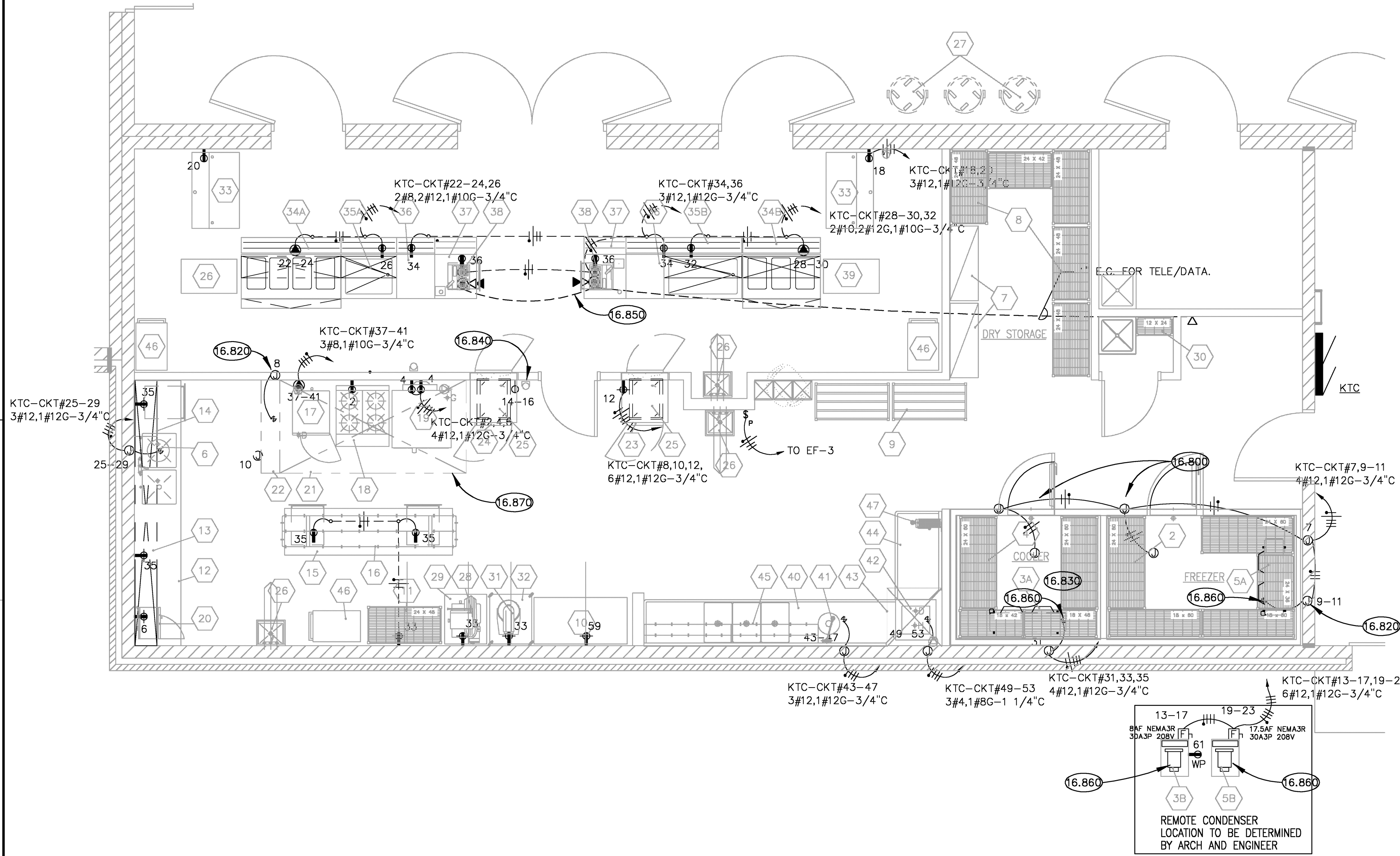
ABBREVIATIONS

SYMBOL		DESCRIPTION		SYMBOL		DESCRIPTION	
A				S			
A		AMPS		SC		SEPARATE CIRCUIT	
AF		AMPERE FRAME/AMPERE FUSE		SD		SMOKE DETECTOR	
AFF		ABOVE FINISHED FLOOR		SF		SQUARE FEET	
AHU		AIR HANDLING UNIT		SPDT		SINGLE-POLE, DOUBLE-THROW	
AIC		AMPERE INTERRUPTING CURRENT		SPST		SINGLE-POLE, SINGLE-THROW	
ATS		AMPERE TRIP		SS		STAINLESS STEEL	
ATSW		AUTOMATIC TRANSFER SWITCH		SW		SWITCH	
AWG		AMERICAN WIRE GAGE		SWBD		SWITCHBOARD	
B				T			
BKR		BREAKER		T		THERMOSTAT	
BOL		BUILT-IN OVERLOAD		TELE		TELEPHONE	
BWE		BAKED WHITE ENAMEL		TC		TIME CLOCK	
BTU		BRITISH THERMAL UNIT		TOP		TEMPERATURE CONTROL PANEL	
C				TS		TOGGLE SWITCH	
C		CONDUIT		TTB		TELEPHONE TERMINAL BOARD	
CATV		CABLE TELEVISION SYSTEM		TTC		TELEPHONE TERMINAL CABINET	
C/B		CIRCUIT BREAKER		TWU		THRU WALL AIR CONDITIONING UNIT	
CCTV		CLOSED CIRCUIT TELEVISION		TYP.		TYPICAL	
CKT		CIRCUIT		U			
CU		COPPER		UG		UNDERGROUND	
D				UH		UNIT HEATER	
DPDT		DOUBLE-POLE, DOUBLE-THROW		UL		UNDERWRITERS LABORATORIES, INC.	
DPST		DOUBLE-POLE, SINGLE-THROW		U.N.O.		UNLESS NOTED OTHERWISE	
DS		DOWNSPOUT		UM		UNIT MANUFACTURER	
E				UPS		UNINTERRUPTIBLE POWER SUPPLY	
EBH		ELECTRIC BASEBOARD HEATER		V			
EC		ELECTRICAL CONTRACTOR		V		VOLT	
ECH		ELECTRIC CABINET HEATER		VA		VOLT-AMPERES	
EF		EXHAUST FAN		VAC		VOLT ALTERNATING CURRENT	
EM		EMERGENCY		VAV		VARIABLE AIR VOLUME	
EMT		ELECTRICAL METALLIC TUBING		VFD		VARIABLE FREQUENCY DRIVE	
EWC		ELECTRIC WATER COOLER		W			
EW		ELECTRIC WATER HEATER		W		WATT	
F				W/W		WITH	
F		FUSED		W/O		WITHOUT	
FAAP		FIRE ALARM ANNUNCIATOR PANEL		WC		WIRE GUARD	
FACP		FIRE ALARM CONTROL PANEL		WP		WEATHER PROOF	
FC		FUSE CLIP SIZE		X			
FPB		FAN POWERED BOX		X		EXISTING EQUIPMENT	
FBD		FURNISHED BY OTHERS		XFR		TRANSFORMER	
FLA		FULL LOAD AMPS		XP		EXPLOSION-PROOF	
FLR		FLOOR		MISCELLANEOUS			
FPC		FIRE PROTECTION CONTRACTOR		2-SP		TWO SPEED	
FS		FLOAT SWITCH					
FVNR		FULL-VOLTAGE, NON-REVERSING					
G							
GC		GENERAL CONTRACTOR					
GFI		GROUND FAULT CIRCUIT INTERRUPTER					
GRD		GROUND					
GRS		GALVANIZED RIGID STEEL					
H							
HOA		HAND-OFF-AUTOMATIC					
HP		HORSEPOWER					
HPS		HIGH PRESSURE SODIUM					
HVAC		HEATING AND VENTILATING CONTRACTOR					
HWGC		HEAVY WALL GALVANIZED CONDUIT					
I							
IDF		INTERMEDIATE DISTRIBUTION FRAME					
IG		ISOLATED GROUND					
INC		INCANDESCENT					
INT		INTEGRAL					
IR		IN ROOM					
IU		IN UNIT					
J							
JB		JUNCTION BOX					
K							
Kcmil		1000 CIRCULAR MILS					
KV		KILOVOLT					
KVA		KILOVOLT-AMPS					
KVAR		KILOVOLT-AMPS REACTIVE					
KW		KILOWATT					
KWH		KILOWATT-HOUR					
L							
LP		LOW PRESSURE					
LV		LOW-VOLTAGE					
LVT		LOW-VOLTAGE THERMOSTAT					
M							
MAG		MAGNETIC MOTOR STARTER					
MAN		MANUAL MOTOR STARTER W/THERMAL OVERLOAD PROTECTION					
MC		MECHANICAL CONTRACTOR					
MCA		MAXIMUM CURRENT AMPACITY					
MCB		MAIN CIRCUIT BREAKER					
MCC		MOTOR CONTROL CENTER					
MD		MOTORIZED DAMPER					
MDF		MAIN DISTRIBUTION FRAME					
MDP		MAIN DISTRIBUTION PANEL					
MFR		MANUFACTURER					
MH		METAL HAULDE					
MLO		MAIN LUG ONLY					
MOC		MINIMUM OVERCURRENT PROTECTION					
MS		MANUAL SWITCH					
MSBD		MAIN SWITCH BOARD					
MTD		MOUNTED					
MUA		MAKE-UP AIR UNIT					
N							
N/A		NOT APPLICABLE					
N.C.		NORMALLY CLOSED					
NF		NON-FUSED					
N.I.C.		NOT IN CONTRACT					
NL		NIGHT LIGHT					
N.O.		NORMALLY OPEN					
N.T.S., NTS		NOT TO SCALE					
NU		NEAR UNIT					
O							
O.H.		OVERHEAD					
OU		ON UNIT					
OCPD		OVERCURRENT PROTECTION DEVICE					
P							
PB		PUSH BUTTON					
PDU		POWER DISTRIBUTION UNIT					
PH		PHASE					
PNL		PANEL					
PROVIDE		FURNISHED, INSTALLED, WIRED AND CONNECTED COMPLETE BY CONTRACTOR					
PVC		POLYVINYL CONDUIT					
PW		PRE-WIRED					
Q							
QTY.		QUANTITY					
R							
REQ'D		REQUIRED					
RTU		ROOF TOP UNIT					

THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS, ABBREVIATIONS, ETC., ARE NECESSARILY USED IN THIS PROJECT.

ELECTRICAL SYMBOL'S LIST

SYMBOL			DESCRIPTION	SYMBOL			DESCRIPTION
CEILING	WALL	FLOOR		CEILING	WALL	FLOOR	
LUMINARIES				FIRE ALARM, EMERGENCY EVACUATION/COMMUNICATION SYSTEM			
			2X4 FLUORESCENT FIXTURE TYPE. SEE LIGHTING FIXTURE SCHEDULE. SHADING=NOT LIGHT				FIRE ALARM PULL STATION. Ø48" AFF
			2X2 FLUORESCENT FIXTURE TYPE. SEE LIGHTING FIXTURE SCHEDULE. NIGHT LIGHT AND EMERGENCY FIXTURE.				FIRE ALARM STROBE LIGHT. NUMBER INDICATES CANDELA LEVEL. (110cd UNLESS NOTED OTHERWISE) Ø80" AFF
			FIXTURE WITH NORMAL/EMERGENCY LIGHTING TRANSFER DEVICE. SEE LIGHTING FIXTURE SCHEDULE.				FIRE ALARM HORN/STORBE COMBINATION. Ø80" AFF
			4' FLUORESCENT INDIRECT FIXTURE TYPE. SEE LIGHT FIXTURE SCHEDULE.				SMOKE DETECTOR. E=ELEVATOR RECALL.
			4' FLUORESCENT STRIP FIXTURE TYPE. SEE LIGHT FIXTURE SCHEDULE. A= FIXTURE TYPE, 2= CIRCUIT ASSIGNMENT, Ø=SWITCH LEO				HEAT DETECTOR. NUMBER=TEMP. RATING, RR=RATE OF RISE.
			DOWN LIGHT FIXTURE TYPE. SEE LIGHTING FIXTURE SCHEDULE.				FIRE ALARM DUCT SMOKE DETECTOR WITH FAN SHUT DOWN RELAY.
			TRACK LIGHT FIXTURE TYPE. SEE LIGHTING FIXTURE SCHEDULE.				REMOTE INDICATING LIGHT WITH TEST SWITCH.
			WALL MTD. FIXTURE TYPE. SEE LIGHTING FIXTURE SCHEDULE.				PROGRAMMABLE FAN SHUT DOWN RELAY.
			SELF CONTAINED EMERGENCY BATTERY PACK W/ BATTERY BACK-UP SEE LIGHTING FIXTURE SCHEDULE.				SPRINKLER ALARM FLOW SWITCH. FURNISHED BY DIV.15, WIRED BY E.C.
			LED EXIT SIGN. ARROWS AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE. WG= WIRE GUARD, PG= PLEXIGLASS SHIELD. EM/EXIT COMBO UNIT. SEE LIGHTING FIXTURE SCHEDULE.				SPRINKLER ALARM TAMPER SWITCH. FURNISHED BY DIV. 15, WIRED BY E.C.
			SINGLE POLE TOGGLE SWITCH. 15A OR 20A AS REQUIRED. 120/277V Ø=SWITCHING CONTROL, P=PILOT LIGHT, K=KEYED SW., LV=LOW VOLTAGE				MONITOR/CONTROL MODULE. S=SINGLE POINT MONITOR MODULE, D=DUAL POINT, C=CONTROL MODULE.
			3-WAY TOGGLE SWITCH. 15A OR 20A AS REQUIRED. 120/277V 3=3 WAY DIMMER				MAGNETIC DOOR HOLDER FOR FIRE ALARM SYSTEM. W=WALL, F=FLOOR.
			LIGHTING CONTROL DIMMER SWITCH. SIZE AS INDICATED.				SPRINKLER BELL. WP=WEATHER PROOF.
			MOMENTARY CONTACT SWITCH.				END OF LINE RESISTOR.
			THERMAL OVERLOAD SWITCH.				FIRE FIGHTERS HAT.
							ANSUL SYSTEM.
WIRING DEVICES & OUTLETS				SECURITY & SIGNALING SYSTEM			
			SPECIAL PURPOSE SINGLE RECEPTACLE. Ø18" AFF MATCH CONFIGURATION TO EQUIPMENT.				CCTV CAMERA. WP=WEATHER PROOF.
			DUPLEX RECEPTACLE. 20A 125V 2P 3W GRD. NEMA5-20R. Ø18" AFF D=DEDICATED CIRCUIT. 1" =MTD. Ø48" AFF, OR Ø6" ABOVE COUNTER.				SECURITY MONITOR.
			GFCI(GROUND FAULT CIRCUIT INTERRUPTER) PROTECTED RECEPTACLE. WP=WEATHER PROOF. 20A 125V 2P 3W GRD. NEMA5-20R. Ø18" AFF				MOTION SENSOR. B=BROAD BEAM, L=LONG RANGE BEAM.
			ISOLATED GROUND(GI) RECEPTACLE. Ø18" AFF 20A 125V 2P 3W GRD. NEMA5-20R OR AS SPECIFIED.				PANIC BUTTON. D=DESK, W=WALL, F=FLOOR.
			DOUBLE DUPLEX RECEPTACLE. Ø18" AFF 20A 125V 2P 3W GRD. NEMA5-20R.				AUTOMATIC DOOR OPENER. WP=WEATHER PROOF.
			DUPLEX RECEPTACLE W/ VIDEO OUTLET IN 2-GANG JBOX. REFER TO VIDEO OUTLET DETAIL. 20A 125V 2P 3W GRD. NEMA5-20R. Ø18" AFF				DOOR PROCESSING UNIT.
			FURNITURE RECEPTACLE. COORDINATE WITH FURNITURE OR CABINET MANUFACTURER. 20A 125V 2P 3W GRD. NEMA5-20R OR AS SPECIFIED.				SECURITY CONTROL PANEL "MAIN BRAIN"
			TAMPER PROOF DUPLEX RECEPTACLE. 20A 125V 2P 3W GRD. Ø18" AFF D=DEDICATED CIRCUIT. 1" =MTD. Ø48" AFF, OR Ø6" ABOVE COUNTER.				PROXIMITY READER. DOUBLE GANG JUNCTION BOX WITH SINGLE GANG PLASTER RING AND 3/4"C TO INDOOR ACCESSIBLE CEILING SPACE.
			CEILING RECEPTACLE, DROP CORD, OR CORD REEL AS NOTED.				MAGNETIC DOOR CONTACT SWITCH.
			TELEPHONE OUTLET Ø18" AFF. REFER TO COMMUNICATION OUTLET DETAIL. W=PUBLIC WALL PHONE Ø54" AFF. 2V= 2 PHONE JACKS. ▼ =6" ABOVE COUNTER				ELECTRIC DOOR STRIKE.
			COMMUNICATIONS OUTLET Ø18" AFF. REFER TO COMMUNICATION OUTLET DETAIL. B = BLANK JACK, AV= AUDIO/VISUAL JACK, MIC= MICROPHONE JACK. ▼ = 6" ABOVE COUNTER, AUX = AUX. CONNECT.				DOOR BELL/CHIME/BUZZER
			FLUSH MTD. FLOOR BOX AND RECEPTACLE. (COVER & CARPET FLANGE SELECTED BY ARCHITECT/OWNER)				LOW VOLTAGE TRANSFORMER.
			STAINLESS STEEL PEDESTAL MTD. FLOOR BOX AND RECEPTACLE (SEE FLOOR PLANS FOR RECEPTACLE TYPE - I.E. GFI, SPECIAL, ETC.)	INTERCOM, CLOCK, & SOUND SYSTEM			
			FLUSH MTD. FLOOR BOX AND TELE/DATA OUTLET. (COVER & CARPET FLANGE SELECTED BY ARCHITECT/OWNER)				PA/CLOCK SYSTEM CLOCK. D=DOUBLE FACE
			MULTI SERVICE CAST IRON RECESSED FLOOR BOX. (COVER & CARPET FLANGE SELECTED BY ARCHITECT/OWNER)				PA/CLOCK SYSTEM SPEAKER. L=LOUD SPEAKER. WP=WEATHER PROOF.
			POKE THRU POWER. (SERVICE FITTING SELECTED BY ARCHITECT/OWNER)				PA/CLOCK SYSTEM VOLUME CONTROL.
			POKE THRU TELE/DATA. (SERVICE FITTING SELECTED BY ARCHITECT/OWNER)				MICROPHONE JACK.
			POKE THRU COMBINATION POWER AND DATA (SEE PLANS FOR EXACT CONFIGURATIONS - SERVICE FITTING SELECTED BY ARCHITECT/OWNER)				LOCAL SOUND SYSTEM SPEAKER.
			SPECIAL PURPOSE OUTLET. NEMA SIZE AS NOTED. PD = PEDESTAL MOUNTED, STAINLESS STEEL ENCLOSURE				POWER SUPPLY.
			1" CHANNEL SURFACE RACEWAY Ø48" AFF OR Ø66" ABOVE COUNTER. RUN LENGTH AS SHOWN ON PLANS W/RECEP. 6" ON CENTER, U.N.D.				AMPLIFIER.
			SCIENCE STATION. COMBINATION AC/DC OUTLET AND JACKS. FIXED AND VARIABLE CIRCUITS AS INDICATED.				SINGLE GANG WALL BOX FOR MICROPHONE JACKS +18" A.F.F. ROUTE 3/4"C. FROM JUNCTION BOX TO SOUND SYSTEM CABINET.
			HAND DRYER. PROVIDE TOGGLE 30A/1P DISCONNECT SWITCH ABOVE ACCESSIBLE CEILING.				SINGLE GANG WALL BOX FOR MICROPHONE JACKS +18" A.F.F. ROUTE 3/4"C. FROM JUNCTION BOX TO SOUND SYSTEM CABINET.
			JUNCTION BOX				DUAL GANG WALL BOX FOR REMOTE CONTROL +45" A.F.F. ROUTE 3/4"C. FROM JUNCTION BOX TO SOUND SYSTEM CABINET.
			PULL BOX. SIZE AS NOTED.				AUDIO/VISUAL OUTLET WITH 1" CONDUIT STUBBED TO ACCESSIBLE CEILING SPACE WITH PULL STRING. COORDINATE EXACT SIZE OF JUNCTION BOX WITH VOICE/DATA CONTRACTOR
			POWER/ TELEPHONE/DATA POLE OR MULTI CHANNEL METAL RACEWAY VERTICAL RUN. REFER TO DRAWINGS & DETAILS.				AUDIO/VISUAL JUNCTION BOX
			ELECTRICALLY LIGHT LIGHTING CONTACTOR. SIZE, COIL VOLTAGE, AND NUMBER OF POLES AS INDICATED.	TELE/DATA, VIDEO SYSTEM			
			ELECTRONIC TIME CLOCK.				TV OUTLET WITH 3/4"C. STUBBED TO ACCESSIBLE CEILING SPACE WITH PULL STRING. REFER TO TELE/DATA OUTLET DETAIL.
			PHOTOCELL.				ANTENNA OUTLET
			FLEXIBLE CONDUIT CONNECTION.				INTERMEDIATE DISTRIBUTION FRAME.
			WIRING IN CONDUIT CONCEALED ABOVE CEILING, IN WALL AND UNDER FLOOR OR UNDERGROUND.				MAIN DISTRIBUTION FRAME.
			WIRING IN CONDUIT EXPOSED ON CEILING OR WALL.				PHONE DISTRIBUTION CABINET
			BRANCH CIRCUIT WIRING IN CONDUIT HOMERUN TO PANEL. ONE ARROW PER HOMERUN. SLASHES INDICATE NUMBER OF CONDUCTORS.				PLYWOOD TELEPHONE TERMINAL BOARD. SIZE AS SHOWN.
			INDICATES GROUND CONDUCTOR.	DEMOLITION			
			INDICATES ISOLATED GROUND CONDUCTOR.				NEW DEVICE OR EQUIPMENT.
POWER EQUIPMENT & DEVICES							EXISTING ELECTRICAL OUTLET OR EQUIPMENT TO BE DEMOLISHED COMPLETE INCLUDING BRANCH CIRCUITRY TO SOURCE.
			MANUAL MOTOR STARTER OR 1P DISCONNECT SWITCH WITH THERMAL OVERLOAD PROTECTION.				REMOVED & REPLACED EXISTING EQUIPMENT WITH NEW AS SPECIFIED.
			SPEED CONTROL SWITCH FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR.				EXISTING ELECTRICAL OUTLET OR EQUIPMENT TO REMAIN. (CIRCUIT # = REROUTE EXISTING CIRCUIT TO NEW CIRCUIT NUMBER)
			UP/DOWN/STOP PUSHBUTTON CONTROL STATION.				EXISTING ELECTRICAL OUTLET OR EQUIPMENT RELOCATED. (NEW LOCATION)
			SAFETY SWITCH. N=NON-FUSED (AMPS/POLES/ENCLOSURE). F=FUSED (AMPS/FUSE/POLES/ENCLOSURE).				EXISTING ELECTRICAL OUTLET OR EQUIPMENT TO BE REMOVED & RELOCATED(OLD LOCATION).
			MAGNETIC MOTOR STARTER. NEMA SIZE AS NOTED.	MISCELLANEOUS			
			COMBINATION MAGNETIC MOTOR STARTER AND FUSED DISCONNECT SW. (AMPS/FUSE/POLES/NEMA SIZE).				HVAC EQUIPMENT IDENTIFICATION
			MOTOR. HP= HORSE-POWER RATING.				KEYNOTE IDENTIFICATION
			ELECTRIC HEAT OUTLET				DETAIL IDENTIFICATION
			RED MUSHROOM BUTTON FOR EMERGENCY SHUT-DOWN OF EQUIPMENT. PUSH OFF, KEY REQUIRED TO TURN BACK ON.	MOUNTING HEIGHT			
			PANEL 240V & BELOW.				48" - 80"
			PANEL ABOVE 240V.				12" - 0"
			TRANSFORMER. TYPE AND RATINGS ARE AS SHOWN.				48"
			GENERATOR REMOTE ANNUNCIATOR PANEL.				80"
			EQUIPMENT CONTROL PANEL.				18"
			CEILING FAN				48" - 12" - 0"
FIRE ALARM, EMERGENCY EVACUATION/COMMUNICATION SYSTEM							18"
			FIRE ALARM CONTROL PANEL.				24"
			FIRE ALARM ANNUNCIATOR PANEL.				30"
			FIRE ALARM NOTIFICATION APPLIANCE CIRCUIT BOOSTER PANEL.				54"
							18" - 48"
							48" - 72"
							96"
							96"

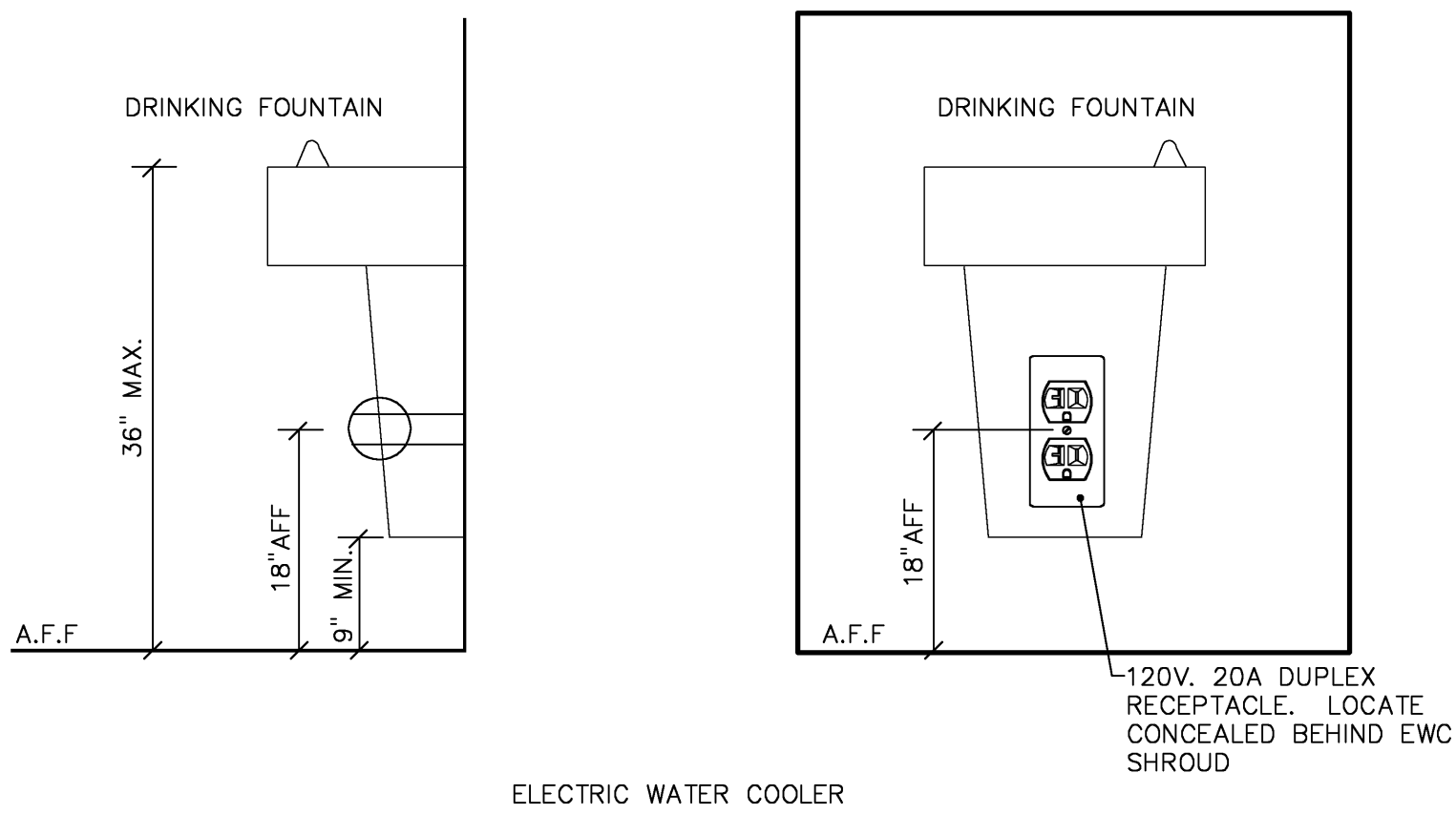


ITEM NUMBER	ITEM DESCRIPTION	ELECTRICAL SCHEDULE							REMARKS
		VOLTAGE	PHASE	AMPS	K.W.	HORSEPOWER	TYPE OF CONN.	HEIGHT ABOVE FIN. FLOOR	
1	WALK-IN FREEZER COOLER	120	1	20			JB	+108"	LIGHTS, DOOR HEATER, HEATING TAPE, ETC.
2	WALK-IN SHELVING								
3	COOLER REFRIGERATION SYSTEM	120	1	4.2			JB	+108"	
3A	COOLER COIL	208	3			1	JB	VER	
3B	COOLER CONDENSER								
4	COOLER SHELVING								
5	FREEZER REFRIGERATION SYSTEM	208	1	10.9			JB	+108"	INTERWIRE BETWEEN COIL AND CONDENSER
5A	FREEZER COIL	208	3			2 1/2	JB	VER	KEC TO VERIFY OUTLET REQUIREMENTS FOR HEATING TAPE (120V)
5B	FREEZER CONDENSER	208	3	3.2			JB	+24"	INTERCONNECT BETWEEN DISPOSER AND PANEL
6	DISPOSER								
7	CAN RACK								
8	STORAGE SHELVING								
9	DUNNAGE RACKS								
10	MOBILE TABLE	120	1	15			DGR	+48"	X
11	POT RACK								
12	PREP SINK	120	1	15			DGR	+48"	
13	WALL SHELF								
14	WALL CABINET								
15	WORKTABLE W/DRAWERS	120	1	15			DGR	+4"	
16	CEILING POT RACK								
17	STEAMER W/STAND	208	3	30			SGR	+24/48"	
18	4-BURNER RANGE W/CONVECTION OVEN	120	1	5			DGR	+24"	ONE FUTURE CONNECTION
19	CONVECTION OVEN (DOUBLE)	120	1	6EA			(2)DGR	+24/30"	
20	MICROWAVE OVEN W/WALL SHELF	120	1	14.6			DGR	+60"	
21	EXHAUST HOOD	120	1	20			JB	+108"	HOOD LIGHTS, INTERWIRE BETWEEN EXHAUST AN AND SWITCH
22	FIRE SUPPRESSION SYSTEM	120	1	15			JB	+108"	PROVIDE DEDICATED CIRCUIT
23	ROLL-THRU REFRIGERATOR	120	1	11.6			DGR	+90"	
24	ROLL THRU FOOD WARMER	120/208	1	10.14			SGR	+90"	
25	ANGLE RACK								
26	HAND SINK								
27	TRASH RECEPTACLES (NOT IN 11400)								
28	SLICER	120	1	1.6			DGR	+48"	
29	SLICER STAND								
30	CHEMICAL SHELVING								
31	MIXER	120	1	8.2			DGR	+48"	
32	MIXER CART								
33	MILK COOLER	120	1	9.9			DGR	+24"	
34A	HOT FOOD TABLE	120/208	1	25.2			SGR	+4"	
34B	HOT FOOD TABLE	120/208	1	19.4			SGR	+4"	
35A	COLD FOOD COUNTER	120	1	10.9			DGR	+4"	
35B	COLD FOOD COUNTER	120	1	10.9			DGR	+4"	
36	FLAT TOP SECTION	120	1	15			DGR	+4"	
37	CASHER STAND	120	1	15			DDGR	+4"	CONVENIENCE OUTLET DEDICATED CIRCUIT. PROVIDE EMPTY JB FOR CONTROL WIRING
38	POS SYSTEM (NOT IN 11400)								WIRED THRU CASHER STAND ITEM 37
39	TRAY CART								
40	SOILED POT TABLE								
41	DISPOSER	208	3	3.3			JB	+24"	INTERCONNECT BETWEEN DISPOSER AND CONTROL PANEL
42	POTWASHER W/BOOSTER	208	3	50			JB	+24"	AMPERAGE BASED ON 110 DEG INCOMING H.W.
43	CONDENSATE HOOD								
44	CLEAN POT TABLE								
45	WALL MOUNTED POT RACK								
46	UTILITY CARTS								
47	HOSE REEL								

ENLARGED KITCHEN PLAN & EQUIPMENT SCHEDULE

SCALE: 1/4"=1'-0"

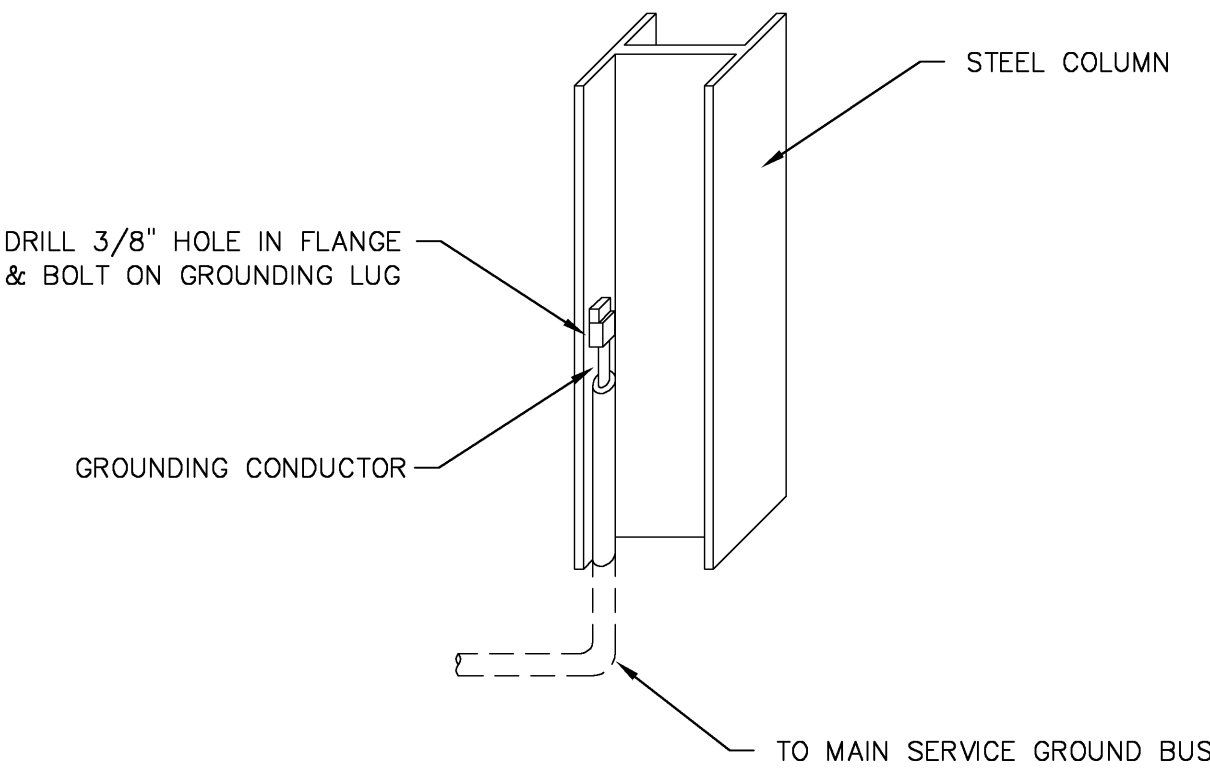
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EWC OUTLET MTD. DETAIL

SCALE: NTS

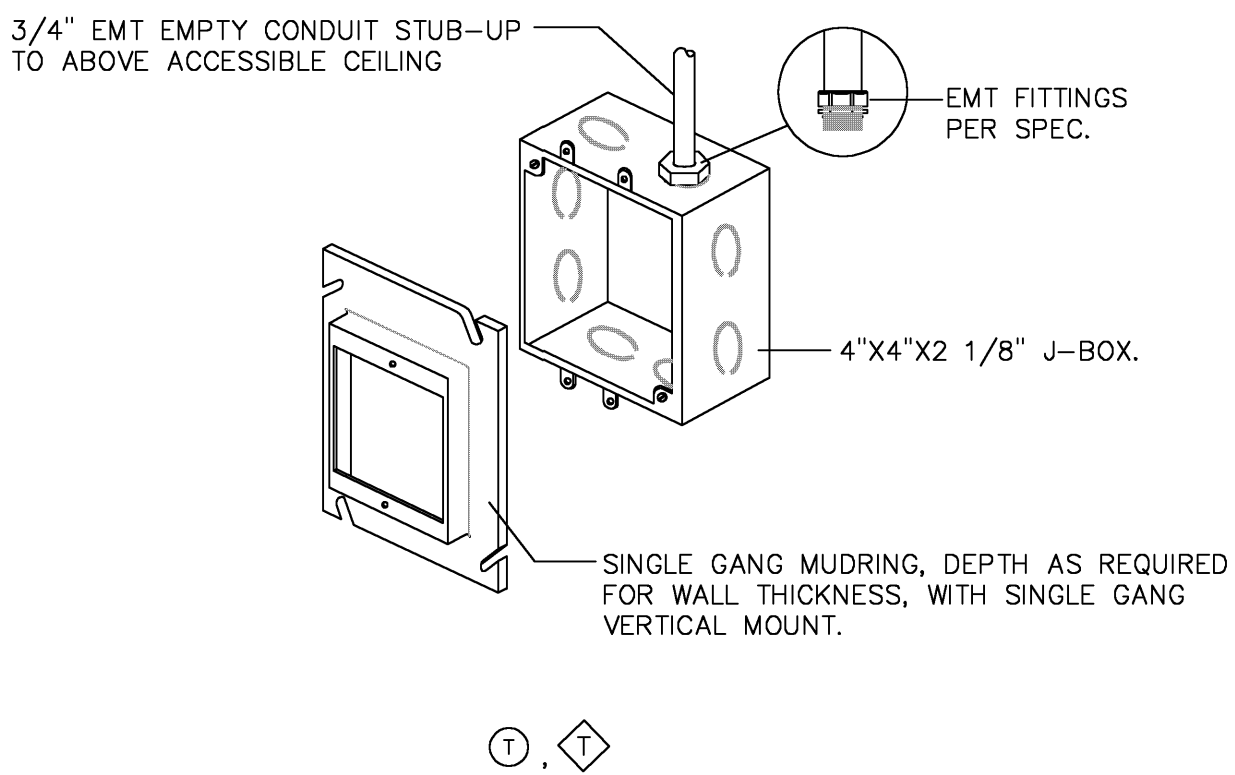
6



BUILDING STEEL GROUNDING DETAIL

SCALE: NTS

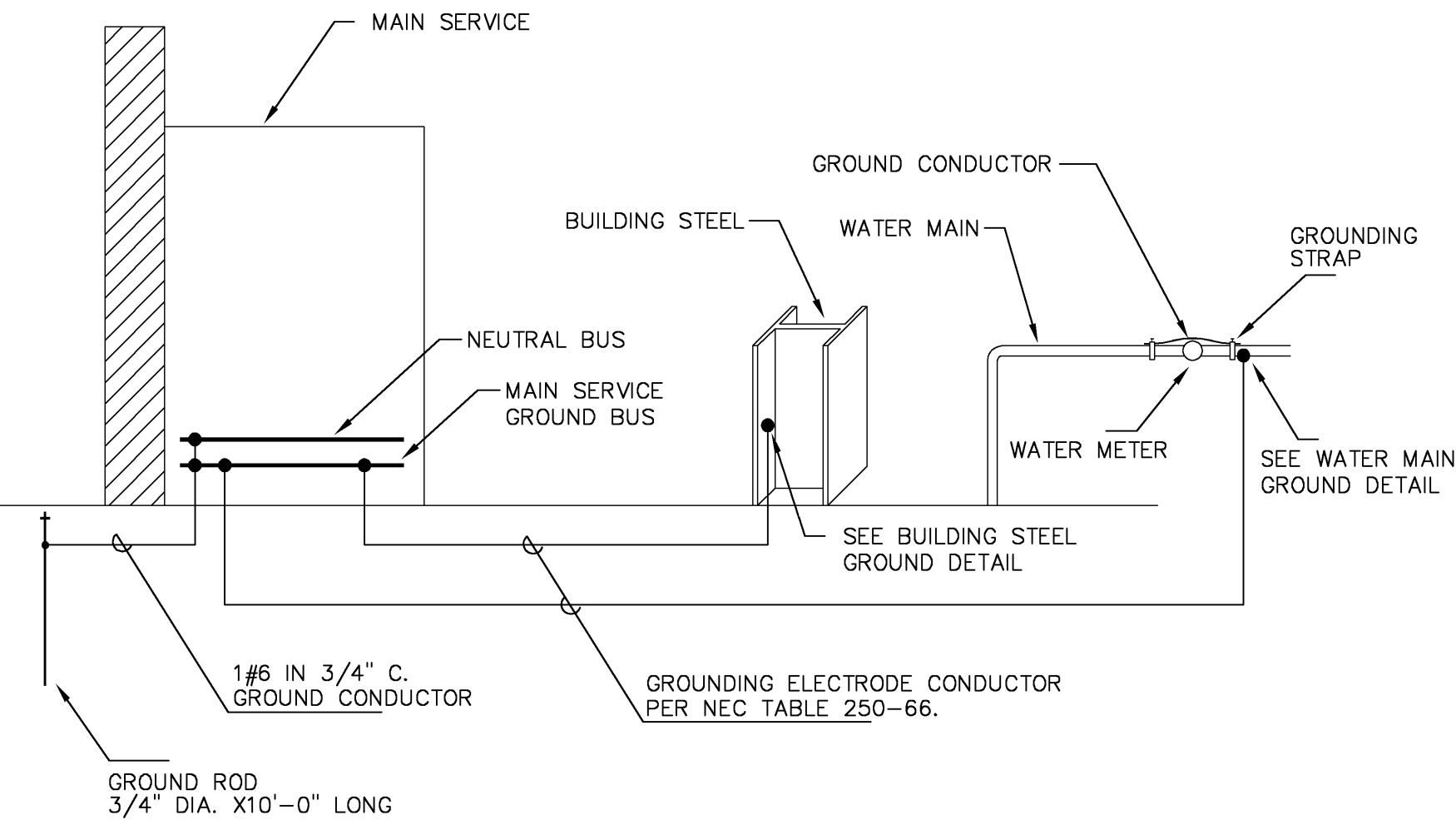
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T-STAT STUB-UP DETAIL

SCALE: NTS

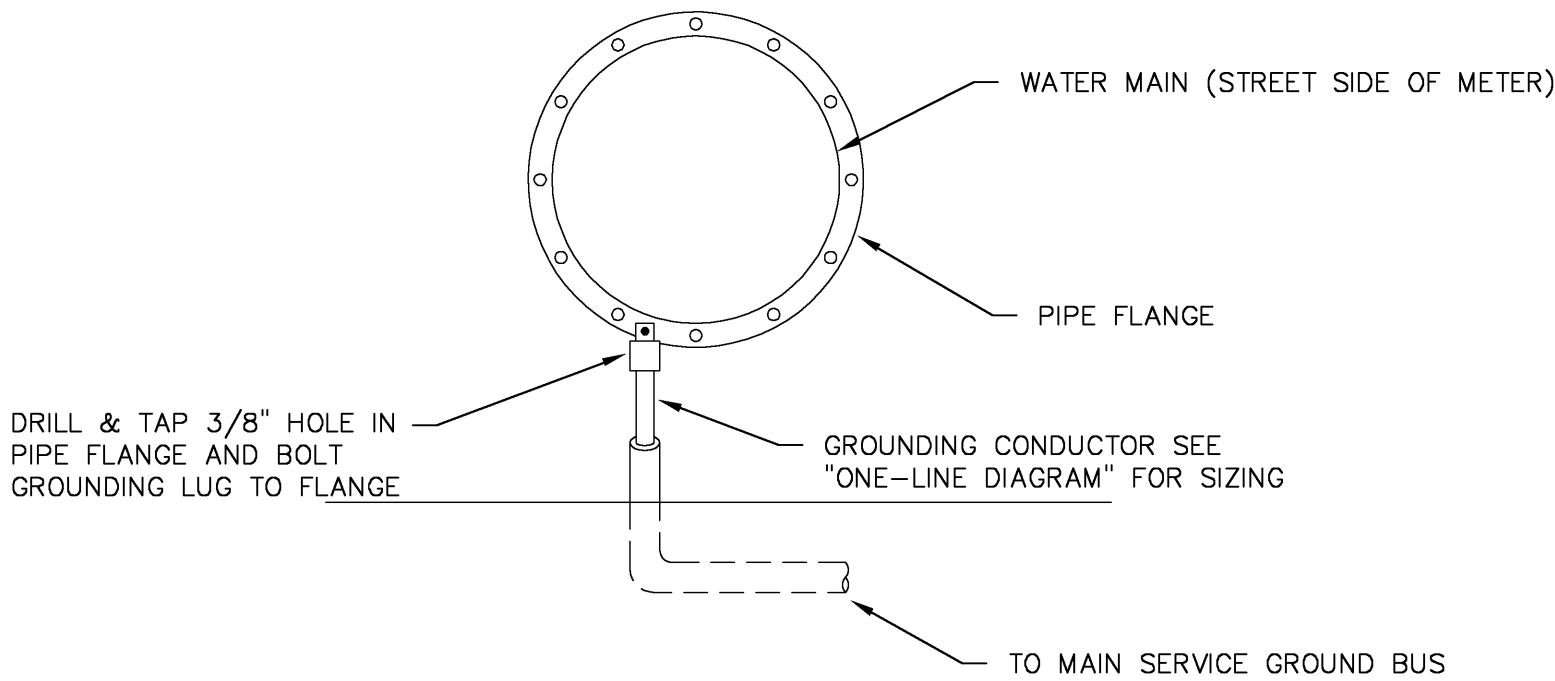
2



MAIN SERVICE GROUNDING DETAIL

SCALE: NTS

9



MAIN WATER GROUNDING DETAIL

SCALE: NTS

7

KEYNOTES

- 16.800 E.C. TO PROVIDE RECEPTACLE FOR DRAIN LINE HEATER TAPE AND TO INTERWIRE (2) FIELD INSTALLED ADDITIONAL LIGHTS. REFER TO FOODSERVICE EQUIPMENT PLANS FOR MORE INFORMATION.
- 16.820 INTERWIRE BETWEEN EXHAUST FAN AND SWITCH LOCATED IN KITCHEN. SEE KITCHEN DRAWINGS FOR ADDITIONAL INFORMATION.
- 16.830 ELECTRICAL CONTRACTOR SHALL INSTALL (2) ADDITIONAL COOLER LIGHTS SUPPLIED BY THE KITCHEN EQUIPMENT CONTRACTOR.
- 16.840 REMOTE FIRE PULL. VERIFY EXACT LOCATION BETWEEN FIRE SUPPRESSION SYSTEM CONTRACTOR AND LOCAL CODES.
- 16.850 1" UNDERGROUND CONDUIT FOR POS SYSTEM. PROVIDE CONTROL CABLE FROM POS STATIONS TO OFFICE. COORDINATE EXACT REQUIREMENTS WITH OWNER.
- 16.860 PROVIDE CONDUIT AND WIRING AS REQUIRED TO INTERWIRE BETWEEN THE COIL AND THE CONDENSER.
- 16.870 PROVIDE CONDUIT AND WIRING AS REQUIRED TO INTERCONNECT FIRE SUPPRESSION SYSTEM TO SHUNT-TRIP CIRCUIT BREAKERS IN PANEL KTC1.

GENERAL NOTES

- 1. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, FIRE PROTECTION PLANS, SHOP DRAWINGS AND MANUFACTURERS INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION ON EXACT POWER, WIRING & ROUGH-IN REQUIREMENTS AND LOCATIONS OF DEVICES.
- 2. REFER TO FOODSERVICE EQUIPMENT DRAWINGS FOR ADDITIONAL INFORMATION.
- 3. VERIFY EXACT OUTLET REQUIREMENTS WITH KITCHEN EQUIPMENT CONTRACTOR PRIOR TO INSTALLATION.
- 4. COORDINATE LOCATIONS OF ELECTRICAL DEVICES WITH INFORMATION CONTAINED ON ARCHITECTURAL PLAN AND ELEVATION DRAWINGS.

ISSUED

10/22/08

JOB NO. 05-158-511
DRAWN JRW
CHECKED MTK
APPROVED JRW

SHEET TITLE

ELECTRICAL
ENLARGED PLANS
& DETAILS

SHEET NUMBER

E810

GRANDE PARK ELEMENTARY SCHOOL

OSWEGO COMMUNITY UNIT SCHOOL DISTRICT 308

4175 ROUTE 71

OSWEGO, ILLINOIS 60543

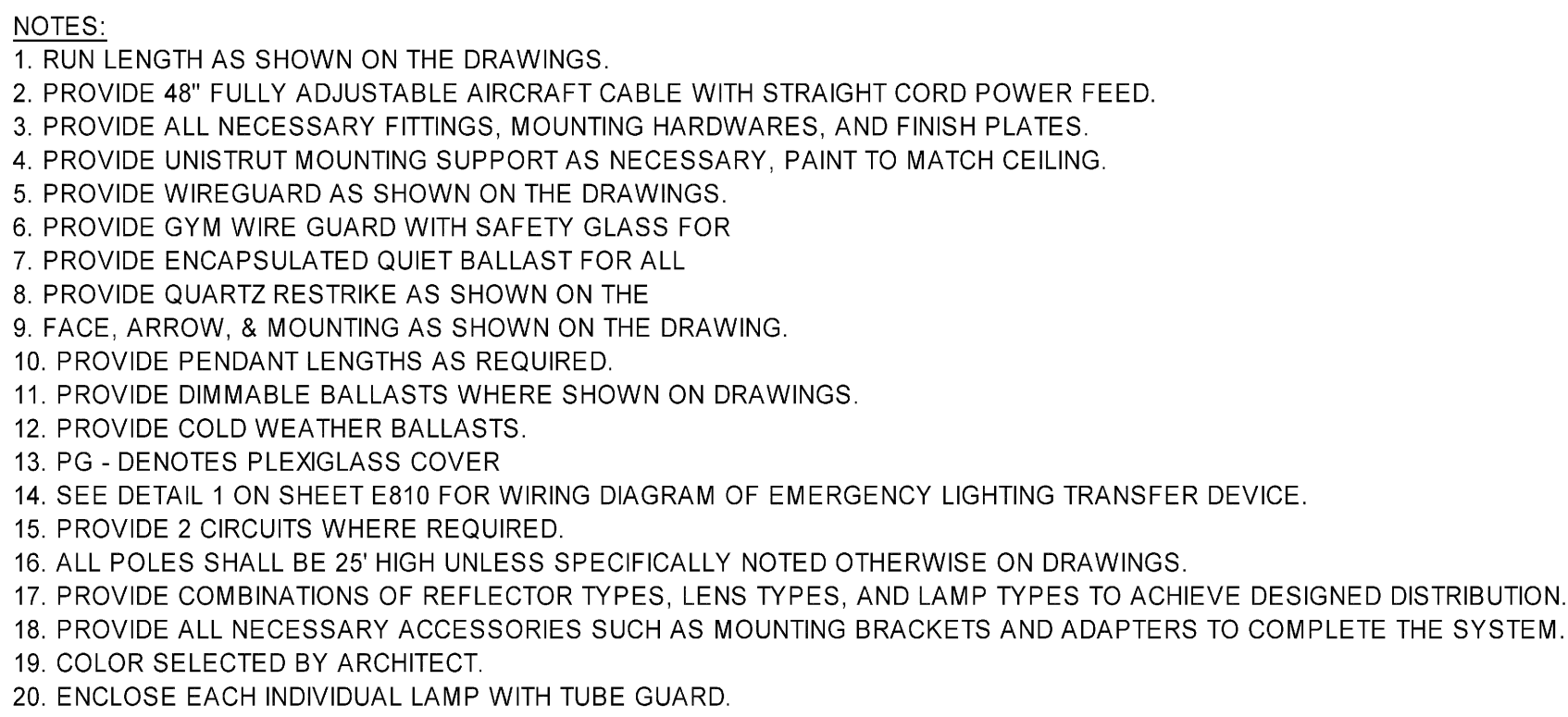
KS+A

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Fax: (630) 405-9472
www.kluberskahan.com

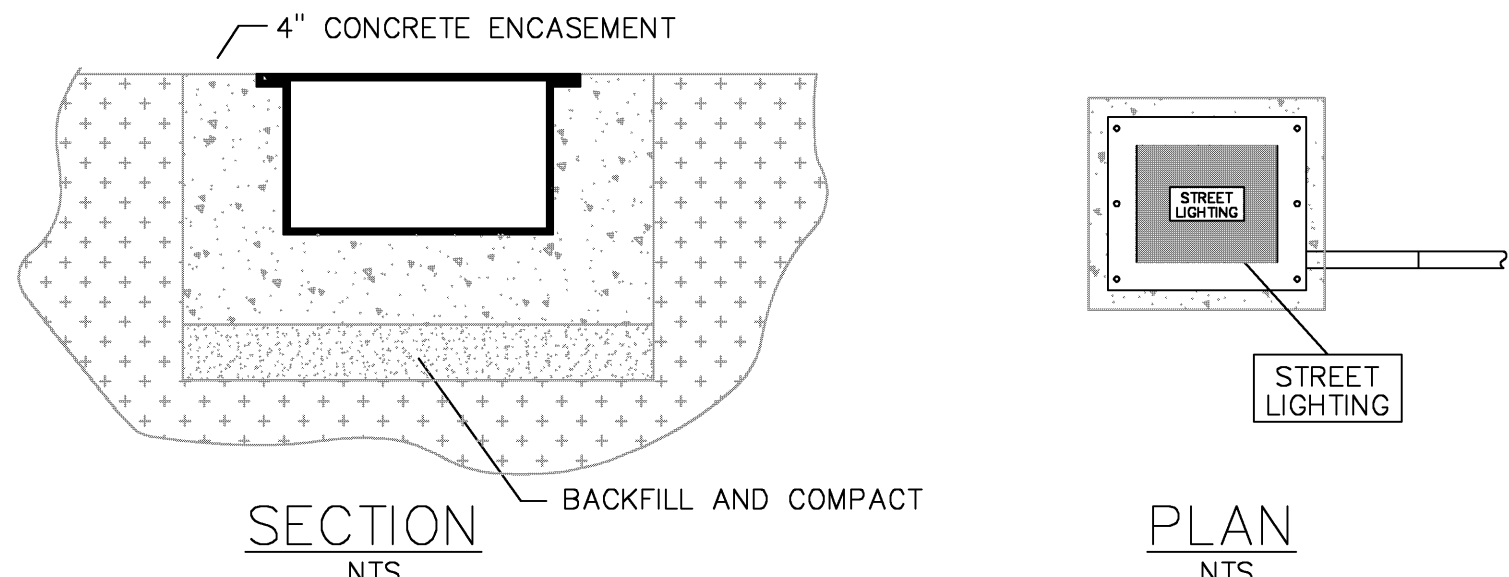
INTERIOR LUMINAIRE SCHEDULE											
TYPE	LAMPS		DESCRIPTION	MFGFR.	CATALOG NUMBER		VOLTAGE	SHIELDING	FINISH	MOUNTING	NOTE
	NO.	CAT. NO.									
F2	3	F32T8/ TLB41	2X4 LAY-IN W/ PRISMATIC LENS	METALUX LIGHTTOLER COLUMBIA	2GRB-332A-E8B1-U XP2GVA332120/277-SO	120/277V	PRISMATIC ACRYLIC	WHITE	RECESSED		
F2A	3	F32T8/ TLB41	SAME AS F2 W/ (1) LAMP EM BATTERY PACK & (2) LAMP ELEC. BALLASTS	METALUX LIGHTTOLER COLUMBIA	2GRB-332A-E8B1-U (1) LAMP EM BALL. XP2GVA332120/277-SO EM	120/277V	PRISMATIC ACRYLIC	WHITE	RECESSED		
F3	2	F32T8/ TLB41	1X4 RECESSED ASYMMETRIC DIRECT/NONDIRECT	METALUX LIGHTTOLER COLUMBIA	RDAISY-232RP-E8B1-U QVS10P6AD232120/277-SO	120/277V	ROUND PERFORATED WHITE STEEL	WHITE	RECESSED		
F3A	2	F32T8/ TLB41	SAME AS F3 W/ (1) LAMP EM BATTERY PACK & (1) LAMP ELEC. BALLAST	METALUX LIGHTTOLER COLUMBIA	RDAISY-232RP-E8B1-U (1) LAMP EM BAL. QVS10P6AD232120/277-SO-EM	120/277V	ROUND PERFORATED WHITE STEEL	WHITE	RECESSED		
F4	2	F32T8/ TLB41	MULTIPURPOSE STRIP LIGHT W/ WIRE GUARD	METALUX LIGHTTOLER COLUMBIA	SS-232E8B1-WG-U SW453232120/277-04-AW3W-CSP	120/277V	NONE	WHITE	CEILING/ SURFACE	1,4,5	
FAA	2	F32T8/ TLB41	SAME AS F4 W/ (1) LAMP EM BATTERY PACK & (1) LAMP ELEC. BALLAST	METALUX LIGHTTOLER COLUMBIA	SS-232E8B1-WG-U (1) LAMP EM BAL. SW453232120/277-04-EM-AW3W-CSP	120/277V	NONE	WHITE	CEILING/ SURFACE	1,4,5	
F5	1	CFT842W /GX24q41	8" APERTURE CFL DOWN LIGHT	PORTFOLIO LIGHTTOLER PATHWAY	C7042-7451-L1 8022CCDP 7142BU	120/277V	NONE	CLEAR ALZAK	RECESSED		
F6	1	CFT842W /GX24q41	6" APERTURE CFL DOWN LIGHT (DIMMING)	PORTFOLIO LIGHTTOLER PATHWAY	C8032-20600-L1 8021CCDP S6132BCU	120/277V	NONE	CLEAR ALZAK	RECESSED		
F7	1	100W INCAN.	ELEVATOR PIT LIGHT W/ WIRE GUARD	LUMARK HUBBELL	ICVW1G APPROVED EQUAL VW-151/VCG-15	120V	PRISMATIC TAMPERED GLASS W/ WG	-	WALL/ SURFACE		
F8	3	F32T8/ TLB41	2X4 3" LOUVER PARABOLIC TROFFER (18 CELL)	METALUX LIGHTTOLER COLUMBIA	2EP3GAX-3323S6E-E8B1-U DPA2018LP332120/27-03	120/277V	PARABOLIC LOUVER	LOW IRIDESCENT ANODIZED	RECESSED	11	
F8A	3	F32T8/ TLB41	2X4 3" LOUVER PARA TROFFER (18 CELL) W/ (1) LAMP EM BATTERY PACK & (2) LAMP ELEC. BALLAST	METALUX LIGHTTOLER COLUMBIA	2EP3GAX-3323S6E-E8B1-U (1) LAMP EM BAL. DPA24-332G-MA36-S3B8BD-UNV	120/277V	PARABOLIC LOUVER	LOW IRIDESCENT ANODIZED	RECESSED	11	
F12	6	F32T8/ TLB41	2' X 4' HIGH BAY FLOURESCENT	METALUX LIGHTTOLER COLUMBIA	P4024-332G-MA36-S3B8BD-UNV-EL 2H6-32-AWG-UPL4-SHK-E8B2	120/277V	ACRYLIC LENS, WIREGUARD & ALUMINUM DOORFRAME	WHITE	CEILING/ SURFACE	4,20	
F12A	6	F32T8/ TLB41	SAME AS F12 W/ (2) LAMP EM BATTERY PACK & (2) LAMP ELEC. BALLASTS	METALUX LIGHTTOLER COLUMBIA	2H6-32-AWG-UPL4-SHK-E8B2 (1) EM BALL. FLW532BE2-E2-A-FLWLENS/FLVUGUARD	120/277V	ACRYLIC LENS, WIREGUARD & ALUMINUM DOORFRAME	WHITE	CEILING/ SURFACE	4,20	
F14	-	-	SELF-CONTAINED EM/EXT COMBO UNIT W/ 2HRS OF BATTERY BACK-UP	SURE-LITES DUAL-LITE	CCK-71-RVHDDH EM121/3 38-2WG)	120/277V	THERMO PLASTIC	WHITE	CEILING/ WALL	5,9	
F15	-	-	SELF-CONTAINED EMERGENCY UNIT W/ 2HRS OF BATTERY BACK-UP	SURE-LITES DUAL-LITE	CCK-3-WVH EM41	120/277V	THERMO PLASTIC	WHITE	CEILING/ WALL	5,9	
F16	-	-	SELF-CONTAINED LED EXT SIGN W/ 2 HRS OF BATTERY BACK-UP	SURE-LITES DUAL-LITE	LX170-RVH LZ15 PXL	120/277V	THERMOPLASTIC	WHITE	CEILING /WALL	5,9	
F17	4	F32T8/ TLB41	2X4 3" LOUVER PARABOLIC TROFFER (32 CELL)	METALUX LIGHTTOLER COLUMBIA	2EP3GAX-4323A48-E8B1-U DPA2032LS432120/277-SO	120/277V	PARABOLIC LOUVER	LOW IRIDESCENT ANODIZED	RECESSED		
F17A	4	F32T8/ TLB41	SAME AS F17 W/ (1) LAMP EM BATTERY PACK & (3) LAMP ELEC. BALLASTS	METALUX LIGHTTOLER COLUMBIA	2EP3GAX-4323A48-E8B1-U (1) LAMP EM DPA2032LS432120/277-SO-EM	120/277V	PARABOLIC LOUVER	LOW IRIDESCENT ANODIZED	RECESSED		
F19	2	COMPACT FLUOR.	AREA OF RESCUE SIGN W/ BATTERY BACKUP	ALKO	ES-1212/DFC/277 - "AREA OF RESCUE ASSISTANCE"	120/277V	POLYCARBONATE	EXTRUDED ALUMINUM	SURFACE		
F20	1	F32T8/ TLB41	INDIRECT FLOURECENT LINEAR LIGHTING SYSTEM	SILTRON DUAL-LITE	SPECIAL SIGNAGE SE-S-R-W-E-SW13	120/277V	ROUND PERFORATED	EXTRUDED ALUMINUM	SURFACE		

SCALE: NTS



SCALE: NTS

SCALE: NTS



N.T.S.

SCALE: NTS

SCALE: NTS

[illegible]

SHEET TITLE

LUMINAIRE

SCHEDULES & DETAILS

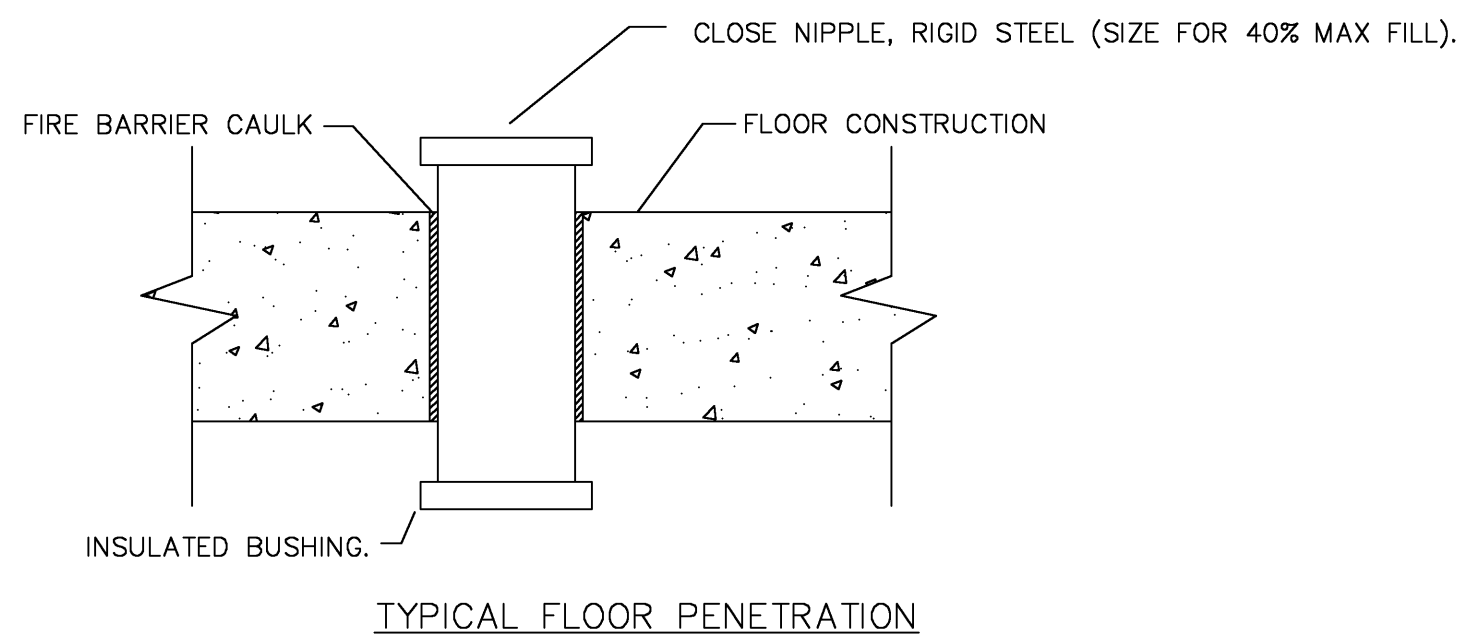
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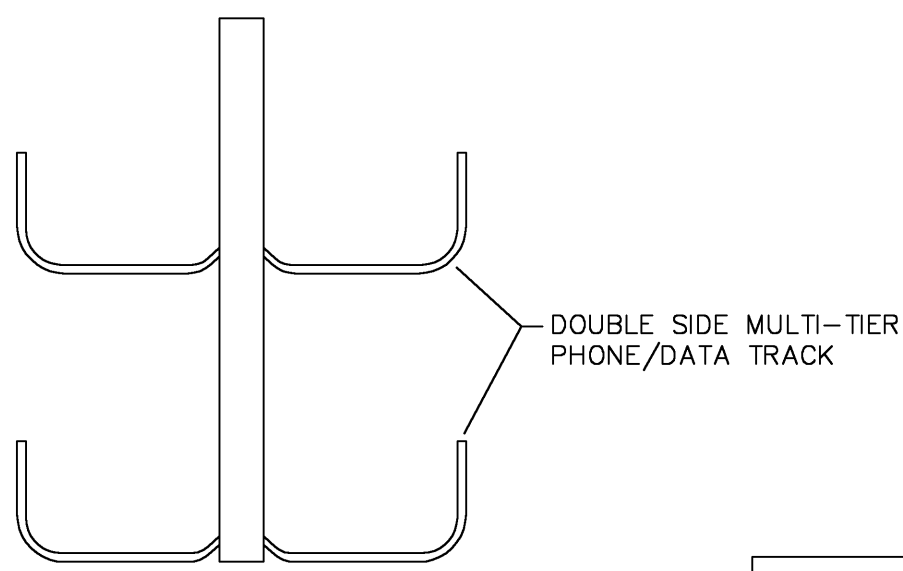
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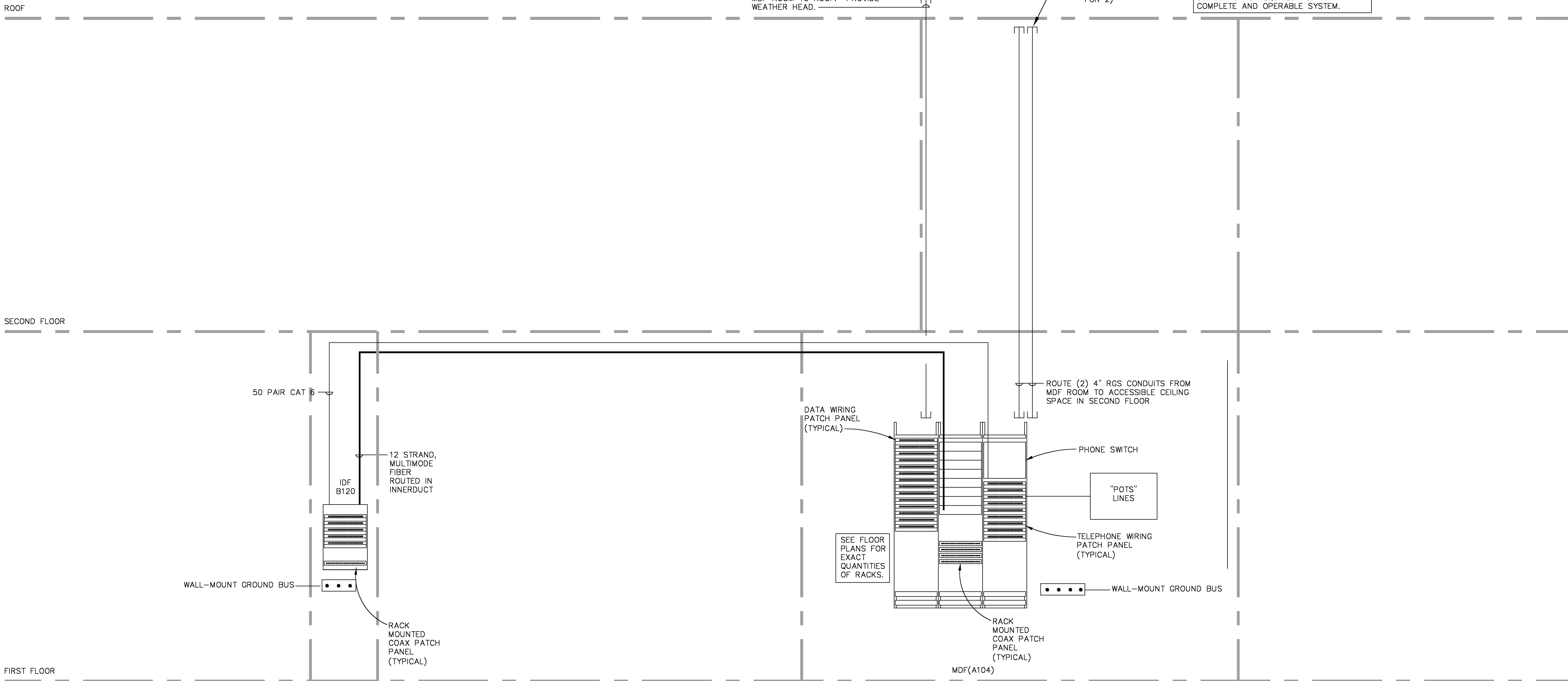
- NOTES:
1. NEATLY CORE ALL MASONRY AND BLOCK WALLS.
 2. RIGIDLY SUPPORT ALL RACEWAYS.
 3. PROVIDE FIRE BARRIER CAULK AT FLOOR, CORRIDOR AND FIRE SEPARATION WALLS.

FLOOR PENETRATION DETAIL
SCALE: NTS **7**

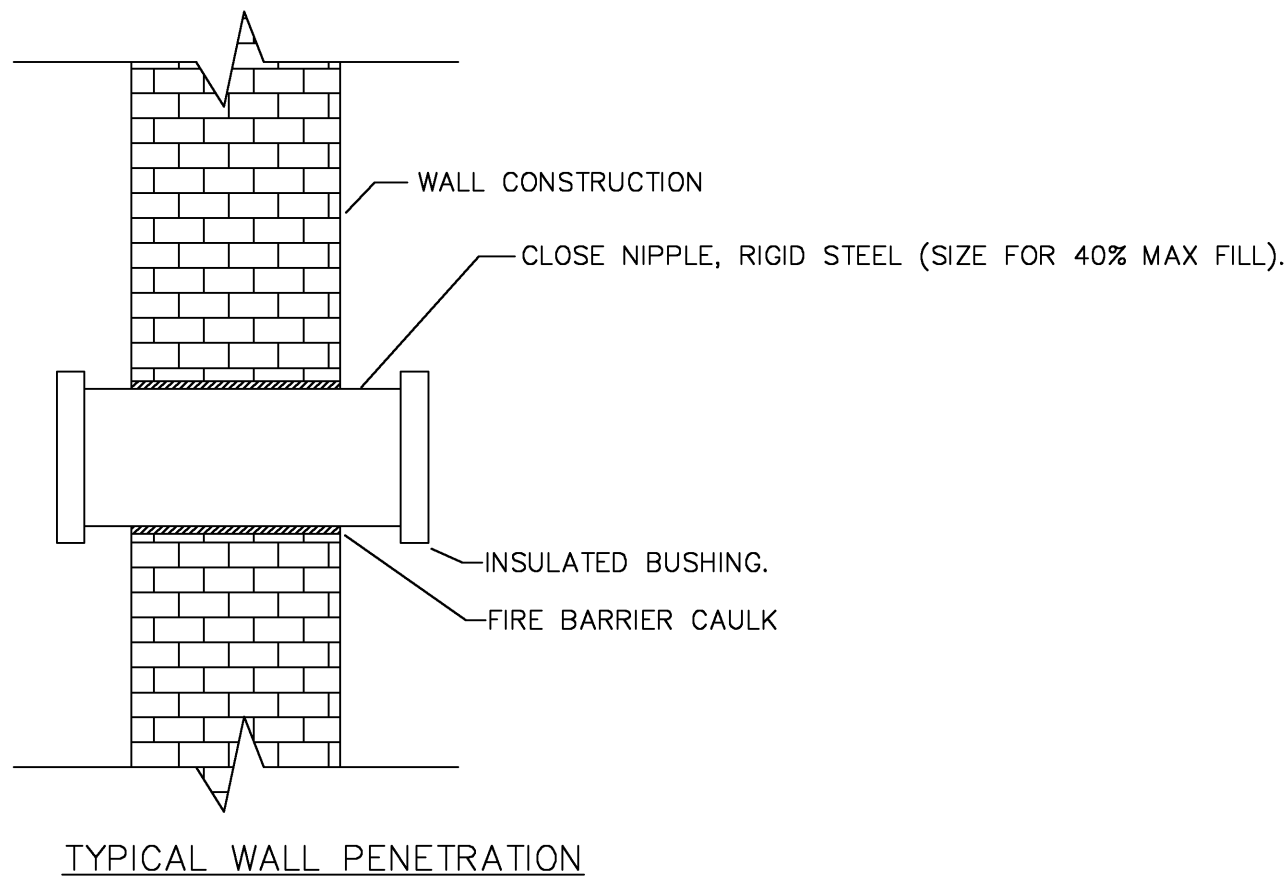


- * B-LINE VERTI-RACK SYSTEM OR EQUAL.
1. MATERIAL : ALUMINUM
 2. TYPE : 4 TIER
 3. LOAD DEPTH : 3"
 4. RUNG SPACE : 18"
 5. RUNG WIDTH : 3" (TOP 2), 9" (BOTTOM 2)
 6. LENGTH : AS INDICATED
 7. MOUNTING : SUSPENDED, THREADED ROD.

- NOTE:
1. PROVIDE ALL NECESSARY MOUNTING ACCESSORIES.
 2. PROVIDE ADDITIONAL TIERS AS REQUIRED.
 3. VERIFY EXACT REQUIREMENTS IN FIELD.

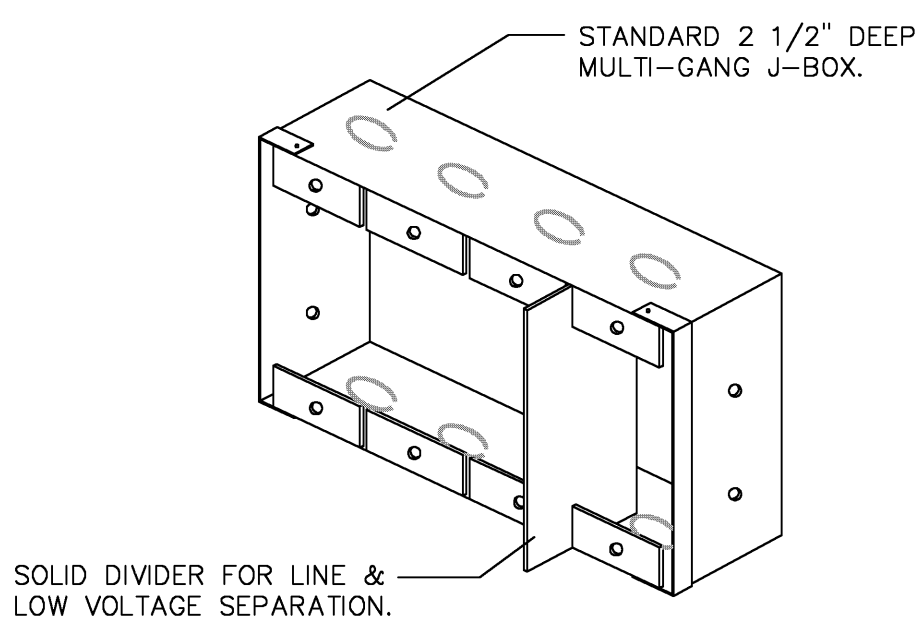


TYP. CABLE RUNWAY SYSTEM DETAIL
SCALE: NTS **8**

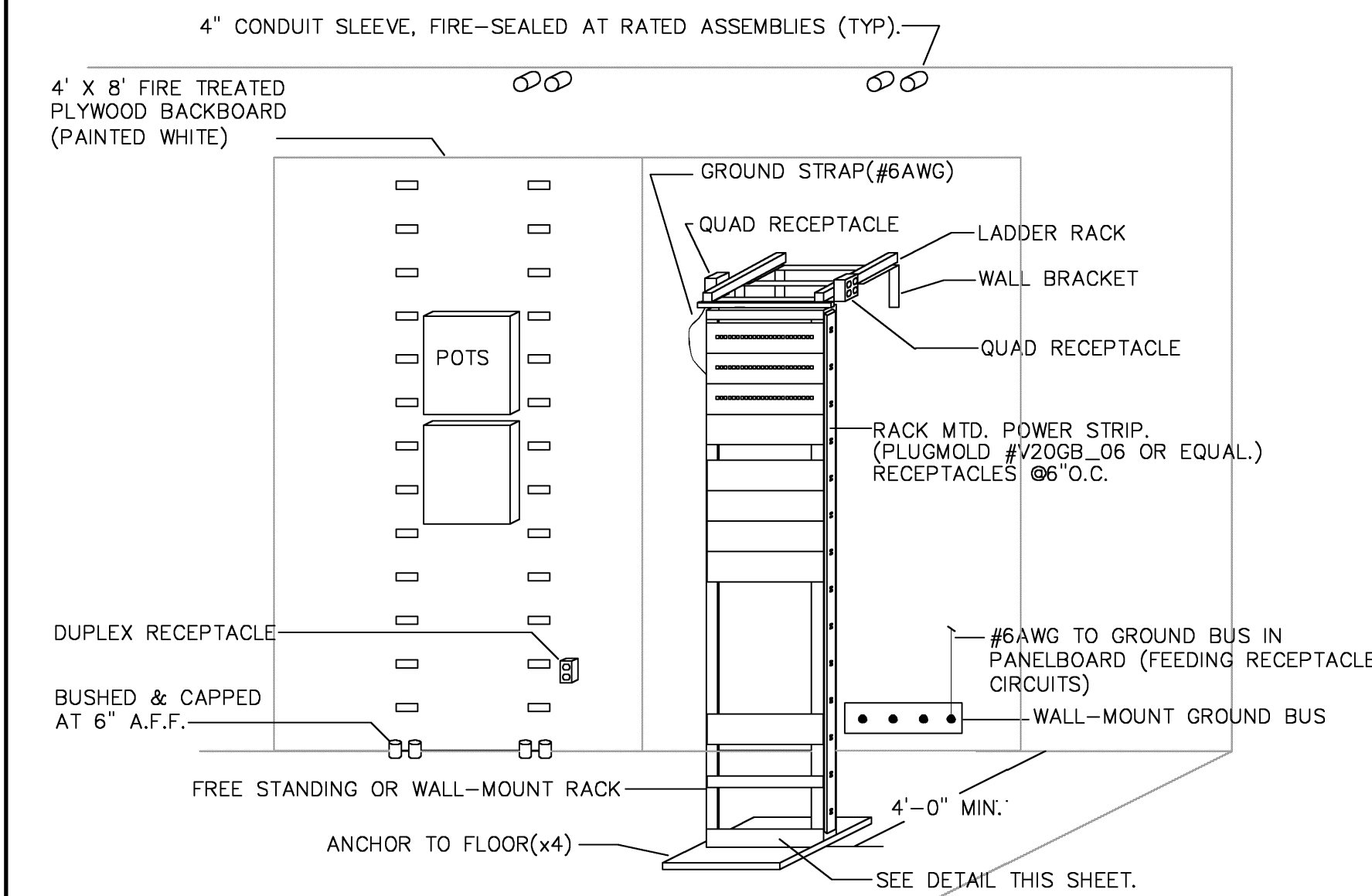


- NOTES:
1. NEATLY CORE ALL MASONRY AND BLOCK WALLS.
 2. RIGIDLY SUPPORT ALL RACEWAYS.
 3. PROVIDE FIRE BARRIER CAULK AT FLOOR, CORRIDOR AND FIRE SEPARATION WALLS.

WALL PENETRATION DETAIL
SCALE: NTS **9**



MULTI-GANG J-BOX DETAIL
SCALE: NTS **6**

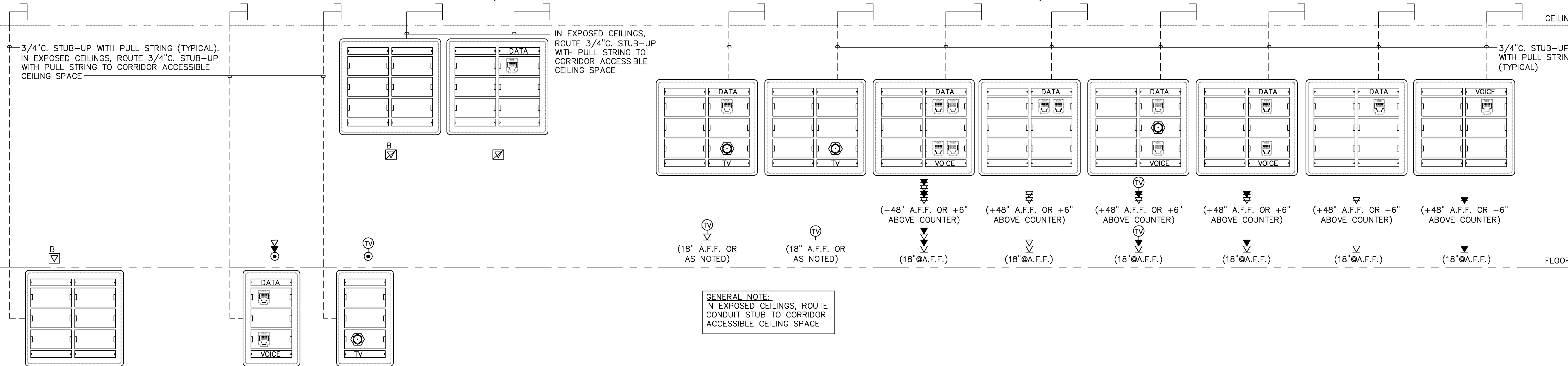


MDF CLOSET LAYOUT DETAIL
SCALE: NTS **4**

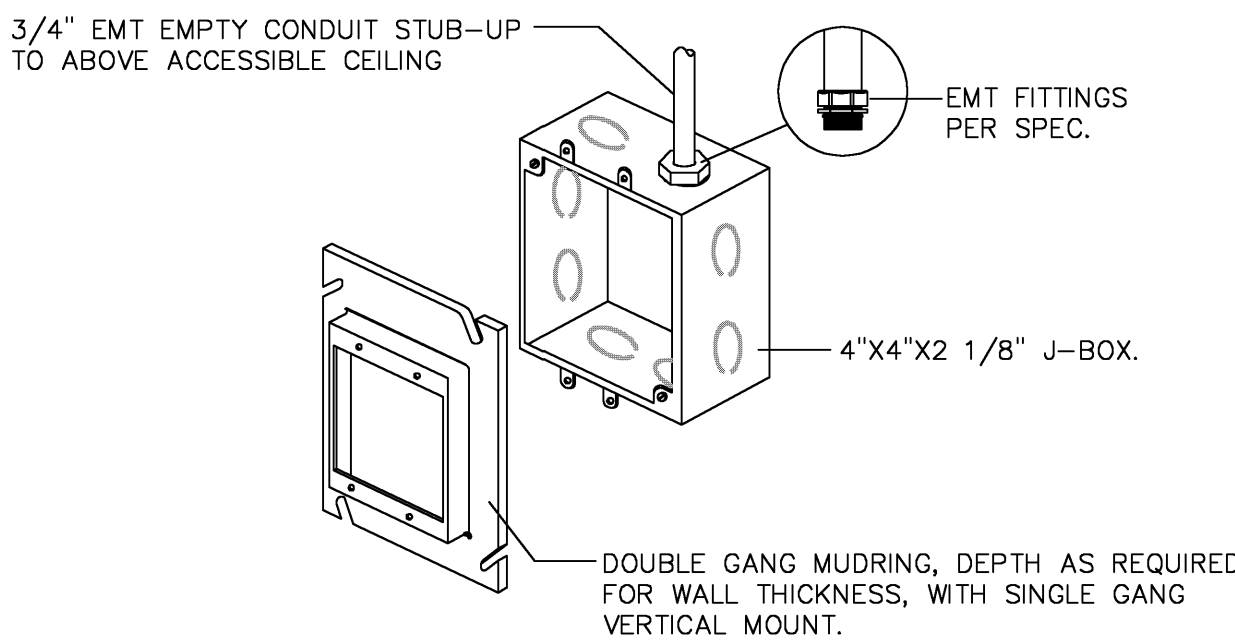
- REFER TO MANUFACTURER'S INSTRUCTIONS AND SHOP DRAWINGS WITH REGARDS TO ACTUAL ROUGH-IN REQUIREMENTS.
- Ⓢ SPEAKER BACKBOX, CEILING-MOUNT.
 - Ⓜ PROX. CARD READER OUTLET, 1/2"E.C. STUB TO DPU LOCATION, 48" AFF.
 - Ⓢ DOOR STRIKE, 1/2"E.C. STUB TO DPU FROM DOOR ASSEMBLY.
 - Ⓢ DOOR MAG CONTACT, 1/2"E.C. STUB TO ACCESS.CLG OR ROOF DECK AT EXPOSED AREAS.
- OUTLET:
- BLOCK/MASONRY WALL: 4"SQUARE MASONRY BOX WITH SINGLE DEVICE TILE COVER.
 - HOLLOW CAVITY: 4"SQUARE, BOX WITH SINGLE DEVICE TRIM RING.
 - FLOOR: ABOVE FLOOR FITTING WITH TWO JACK DEVICE PLATE.
 - ACCESSIBLE CEILING: NO ROUGH-IN
 - INACCESSIBLE CEILING: 4"SQUARE BOX WITH TRIM RING, 3/4" STUB TO ACCESSIBLE LOCATION.

LOW VOLTAGE RISER DIAGRAM
SCALE: NTS **1**

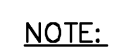
ROUGH-IN NOTES
SCALE: NTS **2**



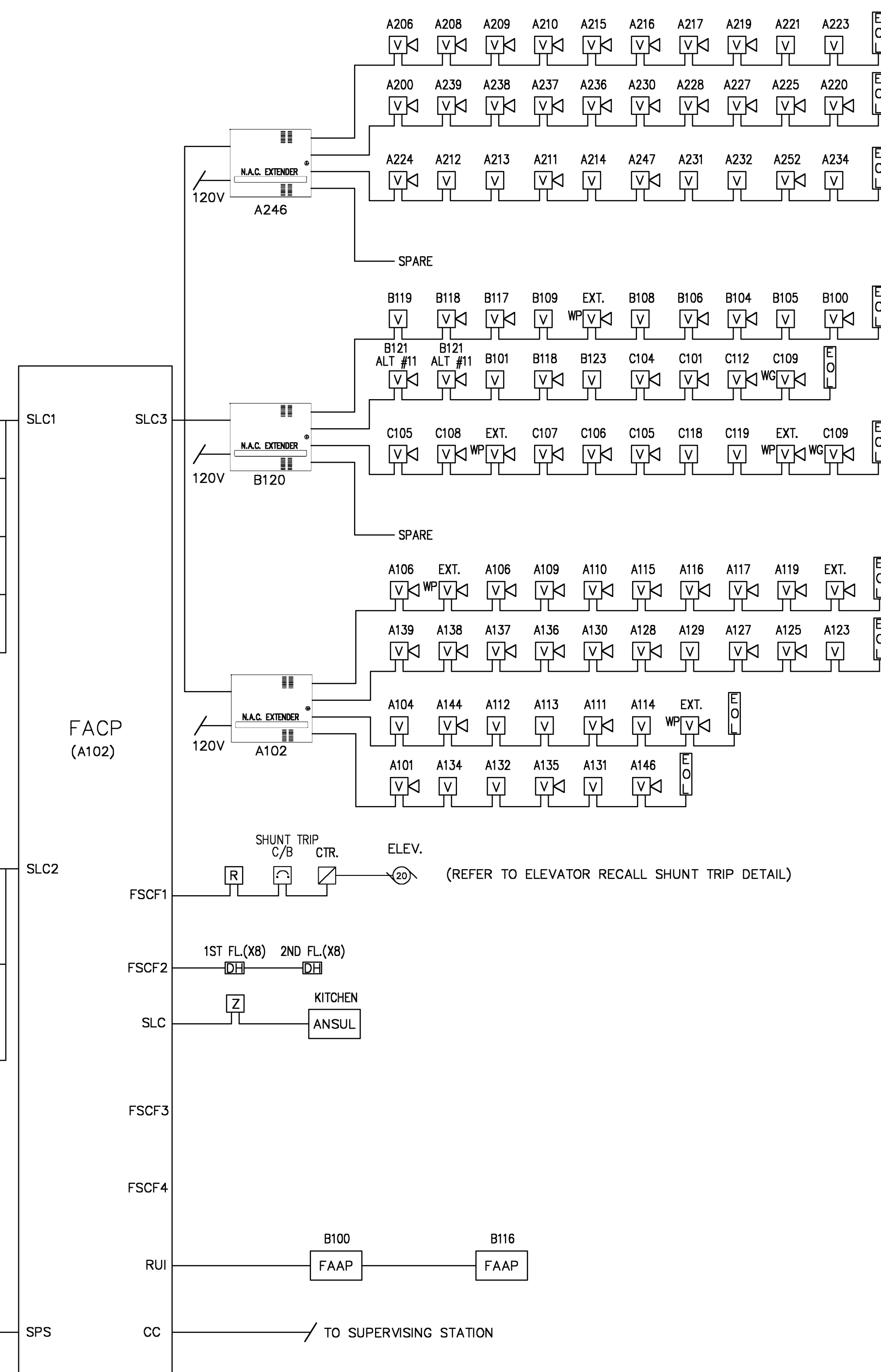
COMMUNICATIONS OUTLET ROUGH-IN DETAIL
SCALE: NTS **5**



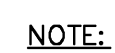
PHONE & DATA OUTLET STUB-UP DETAIL
SCALE: NTS **3**



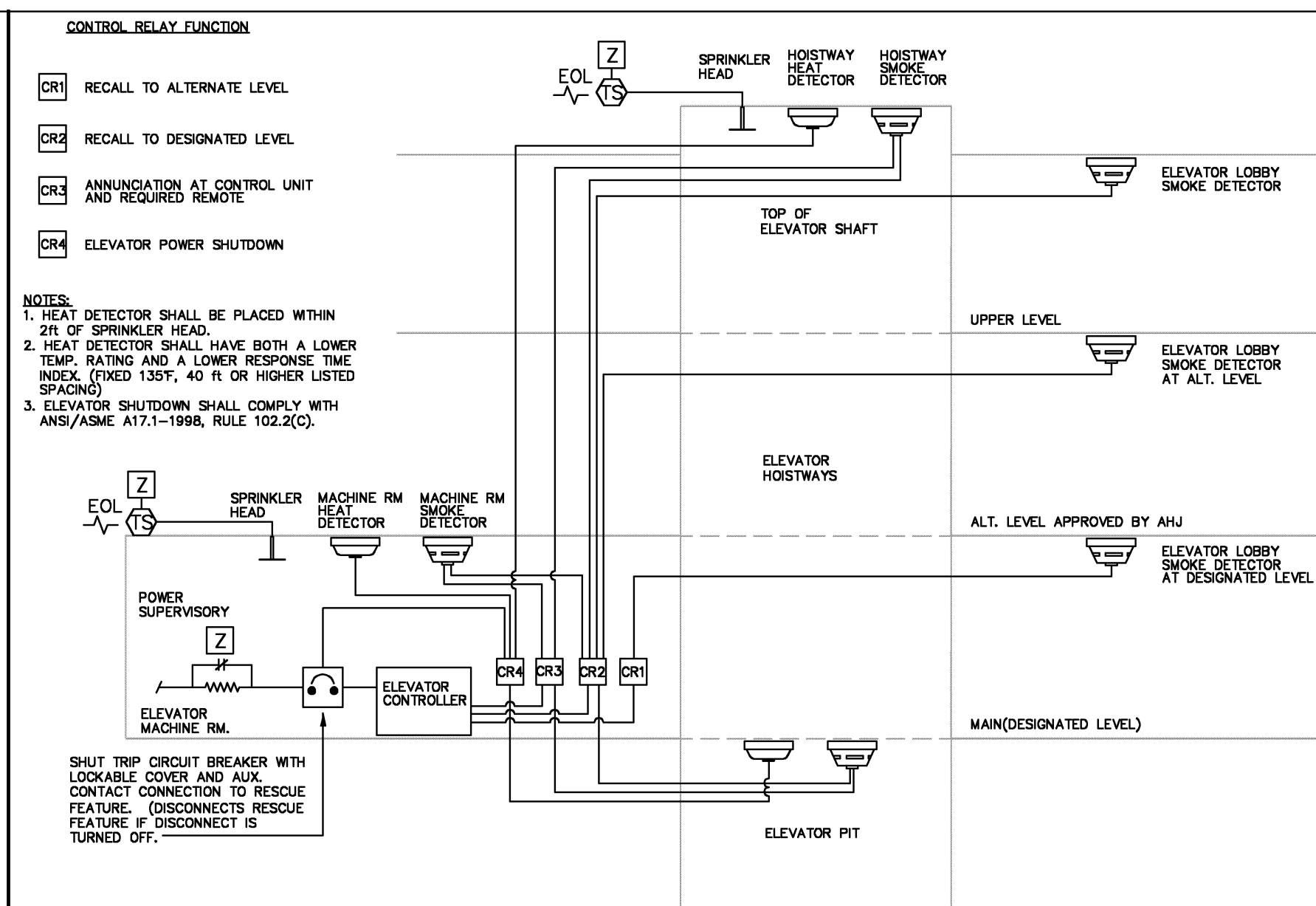
1. INDICATED QUANTITIES ARE NOT EXACT AND ARE NOT TO BE USED FOR ESTIMATING PURPOSES. DEVICE QUANTITIES AND LOCATIONS ARE INDICATED ON THE FLOOR PLAN DRAWINGS. WHERE A CONFLICT EXISTS BETWEEN THESE QUANTITIES AND THE FLOOR PLAN QUANTITIES, THE HIGHER QUANTITY SHALL BE REQUIRED.
2. EACH SUPPLY UNIT SHALL HAVE SMOKE DETECTOR AND FAN STOP RELAY TO STOP FAN ON ANY FIRE ALARM. ALL FANS TO BE RESET FROM FIRE ALARM CONTROL PANEL.
3. VERIFY EXIST FLOW & TAMPER SWITCH QUANTITIES AND LOCATIONS W/ FIRE PROTECTION CONTRACTORS IN FIELD.



FIRE ALARM SYSTEM RISER DIAGRAM 1
SCALE: NTS

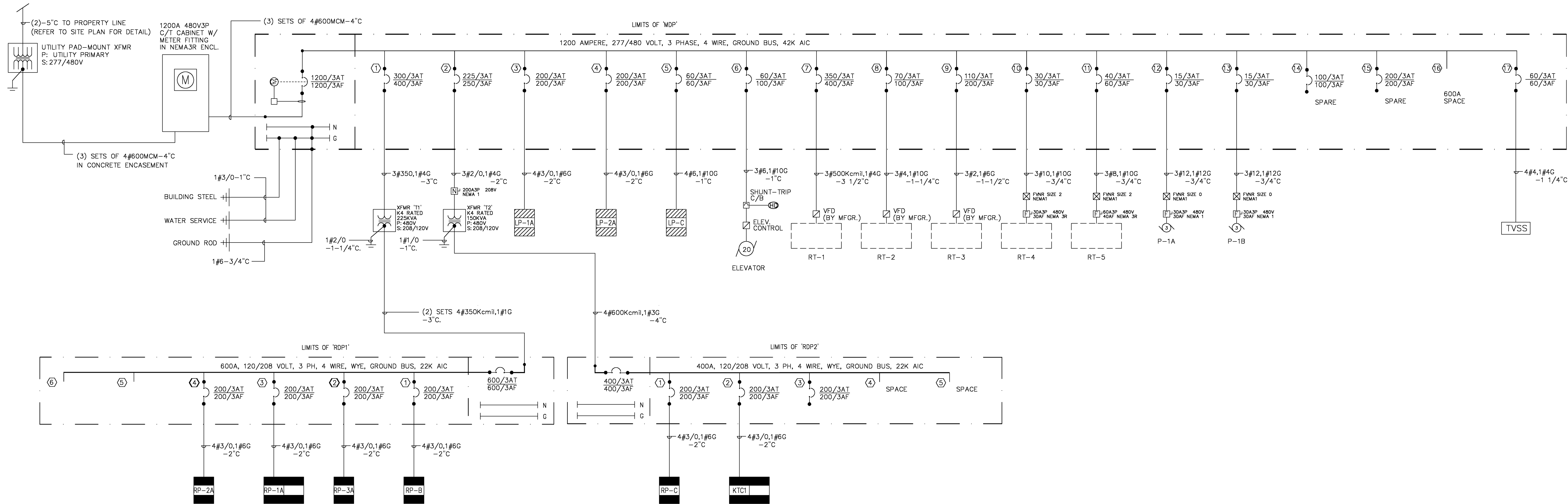


1. THIS RISER DIAGRAM IS SCHEMATIC IN NATURE INTENDED TO DEMONSTRATE THE PERFORMANCE REQUIREMENTS OF THIS PROJECT.
2. ALL NOTIFICATION APPLIANCES SHALL BE CONNECTED TO AUXILIARY POWER N.A.C. PANEL.
3. E.C. SHALL DETERMINE QUANTITY & LOCATION OF NAC EXTENDER.
4. TOTAL CONNECTED LOAD ON SINGLE AUXILIARY POWER N.A.C. PANEL SHALL BE LIMITED TO 70% OF TOTAL CAPACITY.
5. E.C. SHALL PROVIDE CALCULATIONS ORGANIZED BY N.A.C. PANEL.



NAC EXTENSION WIRING DETAIL (3)
SCALE: NTS

ELEVATOR RECALL DETAIL 2
SCALE: NTS



ELECTRICAL ONE LINE DIAGRAM

SCALE: NTS

1

MDP		FRONT ACCESSIBLE, NEMA1 ENCL., BOTTOM FEED GROUND FAULT PROTECTION, FLOOR MOUNT			
CKT	DESCRIPTION	A	B	C	TOTAL
1	T1 (RDP1)	46081	44581	44581	135242
2	T2 (RDP2)	25952 33333	25952 33333	25952 33333	77857
3	LP-1A	30396	28942	29245	88583
4	LP-2A	23154	21321	22044	66519
5	LP-2C	4182	4702	6312	15196
6	ELEVATOR	7467	7467	7467	22401
7	RT-1	88853	88853	88853	266559
8	RT-2	14670	14670	14670	44010
9	RT-3	23528	23528	23528	70584
10	RT-4	6366	6366	6366	19088
11	RT-5	6643	6643	6643	19929
12	P-1A	1333	1333	1333	3999
13	P-1B	1333	1333	1333	3999
17	TVSS				0
TOTAL WATTS		279958	275691	278327	833976
TOTAL AMPS		1011	995	1005	1003

RDP1 DEMAND LOADS		FRONT ACCESSIBLE, TOP FEED, WALL MOUNT.			
CKT	DESCRIPTION	A	B	C	TOTAL
1	RP-B	6487	6487	6487	19460
2	RP-2A	15134	15134	15134	45402
3	RP-1A	15180	15180	15180	45480
4	RP-3A	9300	7800	7800	24900
5	SPACE				0
TOTAL WATTS		46081	44581	44581	135242
TOTAL AMPS		384	372	372	379

RDP2 DEMAND LOADS		FRONT ACCESSIBLE, TOP FEED, WALL MOUNT.			
CKT	DESCRIPTION	A	B	C	TOTAL
1	RP-C	6952	6952	6952	20857
2	KTC				0
3	KTC (CONTINUE)	19000	19000	19000	57000
4	SPACE				0
5	SPACE				0
TOTAL WATTS		25952	25952	25952	77857
TOTAL AMPS		216	216	216	216

LOAD SCHEDULES

SCALE: NTS

2

GRANDE PARK ELEMENTARY SCHOOL

OSWEGO COMMUNITY UNIT SCHOOL DISTRICT 308

4175 ROUTE 71

OSWEGO, ILLINOIS 60543

ISSUED

BID DOCUMENTS

JOB NO. 05-158-511

DRAWN JRW

CHECKED MTK

APPROVED JRW

SHEET TITLE
ELECTRICAL
ONE LINE
DIAGRAM
& LOAD SCHEDULES

SHEET NUMBER

E610

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KLUBER, SKAHAN + ASSOCIATES, INC.

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